

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/16/2019

Reviewed on 05/16/2019

1 Identification

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

(R)-p-mentha-1,8-diene

- **Hazard statements**

Flammable liquid and vapor.

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Causes skin irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO2, powder or water spray.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 2

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

· **Identification number(s)**

· **EC number:** 227-813-5

· **Index number:** 601-029-00-7

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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

15 ppm

· PAC-2:

67 ppm

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· PAC-3:

170 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the skin.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid
Color: Colorless

- **Odor:** Fruit-like

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: -74.3 °C (-101.7 °F)

Boiling point/Boiling range: 173 °C (343.4 °F)

- **Flash point:** 43 °C (109.4 °F)

- **Flammability (solid, gaseous):** Not flammable.

- **Ignition temperature:** 255 °C (491 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

Lower: 0.7 Vol %

Upper: 6.1 Vol %

- **Vapor pressure at 20 °C (68 °F):** 2.3 hPa (1.7 mm Hg)

- **Density at 20 °C (68 °F):** 0.848 g/cm³ (7.07656 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

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Kinematic:	Not determined.
Organic solvents:	100.0 %
VOC content:	100.00 % 848.0 g/l / 7.08 lb/gal

Solids content:	0.0 %
Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

5989-27-5 (R)-p-mentha-1,8-diene

Oral LD50 4,400 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)

3

· NTP (National Toxicology Program)
--

Substance is not listed.

· OSHA-Ca (Occupational Safety Health Administration)
--

Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish

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- **Additional ecological information:**
- **General notes:**
*Water hazard class 2 (Assessment by list): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p>UN2319</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA | <p>Terpene hydrocarbons, n.o.s.
 2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS
 TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT
 TERPENE HYDROCARBONS, N.O.S.</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <p></p> |
| <ul style="list-style-type: none"> · Class · Label | <p>3 Flammable liquids
 3</p> |
| <ul style="list-style-type: none"> · ADR, IMDG | <p> </p> |
| <ul style="list-style-type: none"> · Class | <p>3 Flammable liquids</p> |

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· Label	3
· IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

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· **Hazardous Air Pollutants**

Substance is not listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

(R)-p-mentha-1,8-diene

· **Hazard statements**

Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment (see on this label).

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Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 05/16/2019 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety **Health**

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 3: Flammable liquids – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

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1 Identification

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

- ProSciTech Pty Ltd
11 Carlton Street, Kirwan QLD 4817 Australia
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)
Website: ems.proscitech.com

- Emgrid Australia Pty. Ltd.
P.O. Box 118
The Patch VIC 3792
Australia
Tel: 03 9752 1785
Fax: 03 9752 1784
Website: www.emgrid.com.au

- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

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- **Label elements**

- **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

- **Hazard statements**

Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

In case of fire: Use for extinction: CO₂, powder or water spray.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- **Chemical characterisation: Substances**

- **CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

- **Identification number(s)**

- **EC number:** 227-813-5

- **Index number:** 601-029-00-7

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Trade name: HISTO-CLEAR

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4 First Aid Measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.

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*Protect from heat.**Protect against electrostatic charges.*

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Keep container tightly sealed.*
 - Protect from heat and direct sunlight.*
- **Specific end use(s)** No further relevant information available.

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.*
 - Immediately remove all soiled and contaminated clothing*
 - Wash hands before breaks and at the end of work.*
 - Avoid contact with the skin.*
 - Avoid contact with the eyes and skin.*
- **Respiratory protection:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

9 Physical and Chemical Properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Fruit-like
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point:	-74.3 °C
Initial boiling point and boiling range:	173 °C

· Flash point: 43 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 255 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Not determined.

· Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower:	0.7 Vol %
Upper:	6.1 Vol %

· Vapour pressure at 20 °C: 2.3 hPa

Density at 20 °C:	0.848 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

· Solubility in / Miscibility with water: Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

· Solvent content:

Organic solvents:	100.0 %
VOC (EC)	100.00 %

Solids content: 0.0 %

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· **Other information** No further relevant information available.

10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects**
 - **Acute toxicity**
- | | |
|--|------------------------|
| · LD/LC50 values relevant for classification: | |
| 5989-27-5 (R)-p-mentha-1,8-diene | |
| Oral | LD50 4,400 mg/kg (rat) |
- **Primary irritant effect:**
 - **Skin corrosion/irritation** Irritant to skin and mucous membranes.
 - **Serious eye damage/irritation** No irritating effect.
 - **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	UN2319
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA 	2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.
<ul style="list-style-type: none"> · Transport hazard class(es) · ADG, IMDG 	<div style="display: flex; align-items: center; gap: 10px;"> </div>
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; gap: 10px;"> </div>
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · Packing group · ADG, IMDG, IATA 	III
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADG): 	Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	Warning: Flammable liquids. 30 F-E,S-D A
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.

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· **Transport/Additional information:**

· **ADG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

3

· **Tunnel restriction code**

D/E

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

Substance is listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

Substance is not listed.

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** Warning

· **Hazard-determining components of labelling:**

(R)-p-mentha-1,8-diene

· **Hazard statements**

Flammable liquid and vapour.

Causes skin irritation.

May cause an allergic skin reaction.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

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Wear protective gloves/protective clothing/eye protection/face protection.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Take off contaminated clothing and wash it before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 Specific treatment (see on this label).
 Wash contaminated clothing before reuse.
 In case of fire: Use for extinction: CO₂, powder or water spray.
 Store in a well-ventilated place. Keep cool.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
E1 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Flammable liquids – Category 3
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Skin Sens. 1: Skin sensitisation – Category 1

AU

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/16/2019

Reviewed on 05/16/2019

1 Identification

- **Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 Hazard identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 3 H226 Flammable liquid and vapour.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
(R)-p-mentha-1,8-diene
- **Hazard statements**
Flammable liquid and vapour.

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Safety Data Sheet

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Trade name: HISTO-CLEAR

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*Causes skin irritation.**May cause an allergic skin reaction.***· Precautionary statements***Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**Keep container tightly closed.**Ground and bond container and receiving equipment.**Use explosion-proof [electrical/ventilating/lighting] equipment.**Use non-sparking tools.**Take actions to prevent static discharges.**Avoid breathing dust/fume/gas/mist/vapours/spray.**Wash thoroughly after handling.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**Take off contaminated clothing and wash it before reuse.**If skin irritation or rash occurs: Get medical advice/attention.**Specific treatment (see on this label).**In case of fire: Use for extinction: CO₂, powder or water spray.**Store in a well-ventilated place. Keep cool.**Dispose of contents/container in accordance with local/regional/national/international regulations.***· Classification system:****· NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 2

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Health = 1

Fire = 2

Reactivity = 0

3 Composition/Information on ingredients

· Chemical characterization: Substances**· CAS No. Description**

5989-27-5 (R)-p-mentha-1,8-diene

· Identification number(s)**· EC number:** 227-813-5**· Index number:** 601-029-00-7

4 First aid measures

· Description of first aid measures**· General information:***Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.***· After inhalation:***Supply fresh air and to be sure call for a doctor.**In case of unconsciousness place patient stably in side position for transportation.***· After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*

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- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.

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Trade name: HISTO-CLEAR

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· **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the skin.
 - Avoid contact with the eyes and skin.
- **Breathing equipment:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
 - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Colorless
Odor:	Fruit-like
Odor threshold:	Not determined.

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Trade name: HISTO-CLEAR

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· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-74.3 °C
Boiling point/Boiling range:	173 °C
· Flash point:	43 °C
· Flammability (solid, gaseous):	Not flammable.
· Ignition temperature:	255 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapor pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.848 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	100.0 %
Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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Trade name: HISTO-CLEAR

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

5989-27-5 (R)-p-mentha-1,8-diene

Oral	LD50	4,400 mg/kg (rat)
------	------	-------------------

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

3

- **NTP (National Toxicology Program)**

Substance is not listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Very toxic for fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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Trade name: HISTO-CLEAR

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT/TDG, ADR, IMDG, IATA 	UN2319	
<ul style="list-style-type: none"> · UN proper shipping name · DOT/TDG · ADR · IMDG · IATA 	Terpene hydrocarbons, n.o.s. 2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.	
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT/TDG (Transport dangerous goods): 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · ADR, IMDG 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · IATA 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids 3
<ul style="list-style-type: none"> · Packing group · DOT/TDG, ADR, IMDG, IATA 	III	
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): 	Symbol (fish and tree) Symbol (fish and tree)	
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category 	Warning: Flammable liquids 30 F-E,S-D A	

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Trade name: HISTO-CLEAR

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· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT/TDG	
· Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

ACTIVE

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

Substance is listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

Substance is not listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

Substance is listed.

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

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Reviewed on 05/16/2019

Trade name: HISTO-CLEAR

(Contd. of page 8)

- **Hazard-determining components of labeling:**

- (R)-p-mentha-1,8-diene

- **Hazard statements**

- Flammable liquid and vapour.

- Causes skin irritation.

- May cause an allergic skin reaction.

- **Precautionary statements**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- Keep container tightly closed.

- Ground and bond container and receiving equipment.

- Use explosion-proof [electrical/ventilating/lighting] equipment.

- Use non-sparking tools.

- Take actions to prevent static discharges.

- Avoid breathing dust/fume/gas/mist/vapours/spray.

- Wash thoroughly after handling.

- Contaminated work clothing should not be allowed out of the workplace.

- Wear protective gloves/protective clothing/eye protection/face protection.

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

- Take off contaminated clothing and wash it before reuse.

- If skin irritation or rash occurs: Get medical advice/attention.

- Specific treatment (see on this label).

- In case of fire: Use for extinction: CO₂, powder or water spray.

- Store in a well-ventilated place. Keep cool.

- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of the latest revision of the safety data sheet** 05/16/2019 / -

- **Abbreviations and acronyms:**

- IMDG: International Maritime Code for Dangerous Goods

- DOT: US Department of Transportation

- IATA: International Air Transport Association

- EINECS: European Inventory of Existing Commercial Chemical Substances

- CAS: Chemical Abstracts Service (division of the American Chemical Society)

- NFPA: National Fire Protection Association (USA)

- HMIS: Hazardous Materials Identification System (USA)

- LC50: Lethal concentration, 50 percent

- LD50: Lethal dose, 50 percent

- PBT: Persistent, Bioaccumulative and Toxic

- vPvB: very Persistent and very Bioaccumulative

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 17.05.2019

Revision: 17.05.2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** HISTO-CLEAR
- **Article number:** 64110-01, 64110-04, 64110-10
- **CAS Number:**
5989-27-5
- **EC number:**
227-813-5
- **Index number:**
601-029-00-7
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.05.2019

Revision: 17.05.2019

Trade name: HISTO-CLEAR

(Contd. of page 1)

· Hazard pictograms



GHS02 GHS07 GHS09

· Signal word *Warning*

· Hazard-determining components of labelling:

(R)-p-mentha-1,8-diene

· Hazard statements

*H226 Flammable liquid and vapour.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H410 Very toxic to aquatic life with long lasting effects.*

· Precautionary statements

*P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**P241 Use explosion-proof electrical/ventilating/lighting equipment.**P261 Avoid breathing dust/fume/gas/mist/vapours/spray.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterisation: Substances

· CAS No. Description

5989-27-5 (R)-p-mentha-1,8-diene

· Identification number(s)

· EC number: 227-813-5

· Index number: 601-029-00-7

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

*Supply fresh air and to be sure call for a doctor.**In case of unconsciousness place patient stably in side position for transportation.*

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

· After eye contact: Rinse opened eye for several minutes under running water.

· After swallowing: Call for a doctor immediately.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the skin.
 Avoid contact with the eyes and skin.
- **Respiratory protection:**
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour:	Colourless
Odour:	Fruit-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/freezing point:	-74.3 °C
Initial boiling point and boiling range:	173 °C

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· Flash point:	43 °C
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	255 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.7 Vol %
Upper:	6.1 Vol %
· Vapour pressure at 20 °C:	2.3 hPa
· Density at 20 °C:	0.848 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	100.0 %
VOC (EC)	100.00 %
Solids content:	0.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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· LD/LC50 values relevant for classification:		
5989-27-5 (R)-p-mentha-1,8-diene		
Oral	LD50	4,400 mg/kg (rat)

· **Primary irritant effect:**· **Skin corrosion/irritation**

Causes skin irritation.

· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.· **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.· **Carcinogenicity** Based on available data, the classification criteria are not met.· **Reproductive toxicity** Based on available data, the classification criteria are not met.· **STOT-single exposure** Based on available data, the classification criteria are not met.· **STOT-repeated exposure** Based on available data, the classification criteria are not met.· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**· **Aquatic toxicity:** No further relevant information available.· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Very toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN2319
· 14.2 UN proper shipping name · ADR · IMDG · IATA	2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.
· 14.3 Transport hazard class(es) · ADR, IMDG	
 	
· Class · Label	3 Flammable liquids. 3
· IATA	
	
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Flammable liquids. 30 F-E,S-D A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code	3 D/E
· IMDG · Limited quantities (LQ)	5L

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**
E1 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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1 化学品及企业标识

- **产品识别者**
- **化学品中文名称/英文名称/化学品俗名或商品名:** HISTO-CLEAR
- **商品编号:** 64110-01, 64110-04, 64110-10
- **编号编号编号**
5989-27-5
- **欧盟编号:**
227-813-5
- **欧盟编号:**
601-029-00-7
- **相应纯物质或者混合物的相关下位用途及禁止用途** 无相关详细资料。
- **原材料的应用/准备工作进行** 实验室化学物
- **安全技术说明书内供应商详细信息**
- **企业名称:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **可获取更多资料的部门:** Product safety department
- **紧急联系电话号码:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 危险性概述

· 紧急情况概述:

无色的，液体，易燃液体和蒸气。 吞咽可能有害。 造成皮肤刺激。 可能导致皮肤过敏反应。 对水生生物毒性极大并具有长期持续影响。

· GHS危险性类别



火焰

易燃液体 第3类

H226 易燃液体和蒸气



环境

对水环境的危害(急性) 第1类 H400 对水生生物毒性极大

对水环境的危害(慢性) 第1类 H410 对水生生物毒性极大并具有长期持续影响



皮肤腐蚀/刺激 第2类

H315 造成皮肤刺激

敏化(皮肤) 第1类

H317 可能导致皮肤过敏反应

急性毒性(经口) 第5类

H303 吞咽可能有害

· 标签因素

- **GHS卷标元素** 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

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图示图示图示

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GHS02 GHS07 GHS09

名称名称名称

· 标签上辨别危险的成份:

D-苜烯

· 危险字句

易燃液体和蒸气

吞咽可能有害

造成皮肤刺激

可能导致皮肤过敏反应

对水生生物毒性极大并具有长期持续影响

· 警戒字句

· 预防措施

远离热源/火花/明火/热表面。禁止吸烟

使用防爆的电气/通风/照明/设备

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾

戴防护手套/穿防护服/戴防护眼罩/戴防护面具

· 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 其他有害性

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

3 成分/组成信息

纯品纯品纯品

· CAS号 化学名, 通用名

5989-27-5 D-苜烯

· 鉴别编号:

· 欧盟编号: 227-813-5

· 欧盟编号: 601-029-00-7

4 急救措施

· 应急措施要领

· 总说明: 中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察。

吸入吸入吸入

供给新鲜空气并且确保会叫医生。

万一病人不清醒时,请让病人侧躺以便移动。

· 皮肤接触: 马上用水和肥皂进行彻底的冲洗。

· 眼睛接触: 张开眼睛在流水下冲洗数分钟。

食入食入食入

马上召唤医生。

· 给医生的资料:

· 最重要的急慢性症状及其影响 无相关详细资料。

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· **需要及时的医疗处理及特别处理的症状** 无相关详细资料。

5 消防措施

- **灭火方法**
- **灭火的方法和灭火剂:** 使用二氧化碳 (CO₂)、沙粒、灭火粉末. 切勿使用水.
- **为了安全,不适当的灭火剂会:** 使用全喷嘴的水
- **特别危险性** 无相关详细资料.
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施.

6 泄漏应急处理

- **保护措施** 带上保护仪器. 让未受到保护的人们远离.
- **环境保护措施:**
如果渗入了水源或污水系统,请通知有关当局.
切勿让其进入下水道/水面或地下水.
- **密封及净化方法和材料:**
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑).
根据第 13 条条款弃置受污染物.
确保有足够的通风装置.
切勿用水或水溶清洁剂来冲清.
- **参照其他部分**
有关安全处理的资料请参阅第 7 节.
有关个人防护装备的资料请参阅第 8 节.
有关弃置的资料请参阅第 13 节.

7 操作处置与储存

- **操作处置**
- **储存** 储存 储存
确保工作间有良好的通风/排气装置.
防止气溶胶的形成.
- **有关火灾及防止爆炸的资料:**
远离火源 - 切勿吸烟.
防热.
防静电.
- **混合危险性等安全储存条件**
- **储存** 储存 储存
· **储存库和容器须要达到的要求:** 没有特别的要求.
- **有关使用一个普通的储存设施来储存的资料:** 不需要.
- **有关储存条件的更多资料:**
将容器密封.
免受接触热力和直接受阳光照射.
- **具体的最终用户** 无相关详细资料.

8 接触控制和个体防护

- **工程控制方法:** 没有进一步数据;见第 7 项.

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- **控制变数**
- **在工作场需要监控的限值成分** 不要求.
- **额外的资料:** 制作期间有效的清单将作为基础来使用.
- **泄漏控制**
- **个人防护设备:**
- **一般保护和卫生措施:**
 - 远离食品、饮料和饲料.
 - 立即除去所有的不洁的和被污染的衣服.
 - 在休息之前和工作完毕后请清洗双手.
 - 避免和皮肤接触.
 - 避免和眼睛及皮肤接触.
- **呼吸系统防护:**
 - 如果曾短暂接触或在低污染的情况下,请使用呼吸过滤装置. 如果曾深入或较长时间接触,请使用独立的呼吸保护装置.
- **手防护:**



保护手套

- 手套的物料必须是不渗透性的,且能抵抗该产品/物质/添加剂.
- 基于缺乏测试,对于产品/制剂/化学混合物,并不会提供手套材料的建议
- 选择手套材料时,请注意材料的渗透时间,渗透率和降解参数
- **手套材料** 选择合适的手套不单取决于材料,亦取决于质量特征,以及来自哪一间生产厂家
- **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间
- **眼睛防护:**



密封的护目镜

9 理化特性

· 有关基本物理及化学特性的信息	
· 一般说明	
外观外观外观	液体
形状形状形状	无色的
颜色颜色颜色	类似水果
气味气味气味	未决定.
· 嗅觉阈限	
· pH值:	未决定.
· 条件的更改	
熔点熔点熔点	-74.3 °C
沸点沸点沸点	沸点和沸程: 173 °C
闪点闪点闪点	43 °C
· 可燃性 (固体、气体): 不适用的	
· 点火温度:	255 °C
· 分解温度:	未决定.

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(在 4 页继续)

· 自燃温度:	未决定.
· 爆炸的危险性:	该产品并非爆炸性的然而有可能形成可爆炸性的空气/蒸汽混合物
爆炸爆炸极限:	
较低较低较低	0.7 Vol %
较高:	6.1 Vol %
· 蒸气压 在 20 °C:	2.3 hPa
密度密度密度0 °C:	0.848 g/cm ³
· 相对密度密度	未决定.
· 蒸气密度	未决定.
· 蒸发速率	未决定.
溶解解性解性	
水:	不能拌和的或难以拌和
辛醇辛醇/水分配系数系数	未决定.
· 黏性:	
动态动态动态	未决定.
运动运动运动的学的	未决定.
机溶剂溶剂溶	100.0 %
固体成份:	0.0 %
· 其他信息	无相关详细资料。

10 稳定性和反应性

稳定性稳定性相关详细资料。

稳定稳定稳定

分解分解分解免的条件: 如果遵照规格使用则不会分解。

有害有害有害可能性: 未有已知的危险反应。

避免避免避免条件: 无相关详细资料。

· 不相容的物质: 无相关详细资料。

· 危险的分解产物: 未知有危险的分解产品。

11 毒理学信息

· 对毒性学影响的信息

· 急性毒性:

· 与分类相关的 LD/ LC50 值:

5989-27-2 苧烯苧烯苧烯

口腔	LD50	4,400 mg/kg (rat)
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重要的刺激影响:

皮肤皮肤刺激皮肤和粘膜。

· 在眼睛上面: 没有刺激的影响。

致敏致敏致敏作用: 通过皮肤接触可能造成敏化作用。

CN

(在 6 页继续)

化学品安全技术说明书


据根据据根T 16483-2008, GB/T 17519-2013

打印日期 2019.05.17

在 2019.05.17 审核

化学品中文名称: 化学品俗名或商品名: HISTO-CLEAR

(在 6 页继续)

标签	3
· IATA	
	
· Class	3 易燃液体
· Label	3
· 包装组别	
· ADR, IMDG, IATA	III
· 危害环境:	
· 海运污染物物质	象征符号 (鱼和树)
特别预防措施 (ADR):	象征符号 (鱼和树)
· 用户特别预防措施	警告: 易燃液体
· 危险编码:	30
· E号	F-E,S-D
· Stowage Category	A
· MARPOL73/78(针对船舶引起的海洋污染预防协议)	
附件书根据根据C国际国际船货船编码)值大量大量	
运送运送运送	不适用的
运输运输额外的资料:	
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· 标准标准规定	UN 2319 萘烃类, 未另作规定的, 3, III, ENVIRONMENTALLY HAZARDOUS

15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律
- 危险化学品安全管理条例

· 危险化学品目录

5989-27-5 | D-苊烯

· 新化学物质环境管理办法

· 国家环境有害物质名录

有列出物质.

· GHS卷标元素 本化学物质根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

(在 8 页继续)

化学品安全技术说明书

据根据据据T 16483-2008, GB/T 17519-2013

打印日期 2019.05.17

在 2019.05.17 审核

化学品中文名称: 化学品俗名或商品名: HISTO-CLEAR

(在 7 页继续)

图示图示图示



GHS02 GHS07 GHS09

名称名称名称

· 标签上辨别危险的成份:

D-苜烯

· 危险字句

易燃液体和蒸气

吞咽可能有害

造成皮肤刺激

可能导致皮肤过敏反应

对水生生物毒性极大并具有长期持续影响

· 警戒字句

· 预防措施

远离热源/火花/明火/热表面。禁止吸烟

使用防爆的电气/通风/照明/设备

避免吸入粉尘/烟/气体/烟雾/蒸气/喷雾

戴防护手套/穿防护服/戴防护眼罩/戴防护面具

· 事故响应

如皮肤(或头发)沾染:立即脱掉所有沾染的衣服。用水清洗皮肤/淋浴

· 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

· 化学物质安全性评价: 尚未进行化学物质安全性评价

16 其他信息

该资料是基于我们目前的知识。然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系。

· 缩写:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

易燃液体 第3类: Flammable liquids – Category 3

急性毒性(经口) 第5类: Acute toxicity – Category 5

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation – Category 2

敏化(皮肤) 第1类: Skin sensitisation – Category 1

对水环境的危害(急性) 第1类: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

对水环境的危害(慢性) 第1类: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Bezpečnostní list

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ODDÍL 1: Identifikace látky/směsi a společnosti/podniku

- **1.1 Identifikátor výrobku**
- **Obchodní označení:** HISTO-CLEAR
- **Číslo výrobku:** 64110-01, 64110-04, 64110-10
- **Číslo CAS:**
5989-27-5
- **Číslo ES:**
227-813-5
- **Indexové číslo:**
601-029-00-7
- **1.2 Příslušná určená použití látky nebo směsi a nedoporučená použití**
Další relevantní informace nejsou k dispozici.
- **Použití látky / přípravku** Laboratorní chemikálie
- **1.3 Podrobné údaje o dodavateli bezpečnostního listu**
- **Identifikace výrobce/dovozce:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Obor poskytující informace:** Product safety department
- **1.4 Telefonní číslo pro naléhavé situace:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

ODDÍL 2: Identifikace nebezpečnosti

- **2.1 Klasifikace látky nebo směsi**
- **Klasifikace v souladu s nařízením (ES) č. 1272/2008**



GHS02 plamen

Flam. Liq. 3 H226 Hořlavá kapalina a páry.



GHS09 životní prostředí

Aquatic Acute 1 H400 Vysoce toxický pro vodní organismy.

Aquatic Chronic 1 H410 Vysoce toxický pro vodní organismy, s dlouhodobými účinky.



GHS07

Skin Irrit. 2 H315 Dráždí kůži.

Skin Sens. 1 H317 Může vyvolat alergickou kožní reakci.

- **2.2 Prvky označení**
- **Označování v souladu s nařízením (ES) č. 1272/2008** Látka je klasifikována a označena podle nařízení CLP.

(pokračování na straně 2)

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Obchodní označení: HISTO-CLEAR

(pokračování strany 1)

· Výstražné symboly nebezpečnosti



GHS02 GHS07 GHS09

· Signální slovo Varování

· Nebezpečné komponenty k etiketování:

d-limonen

· Standardní věty o nebezpečnosti

H226 Hořlavá kapalina a páry.

H315 Dráždí kůži.

H317 Může vyvolat alergickou kožní reakci.

H410 Vysoce toxický pro vodní organismy, s dlouhodobými účinky.

· Pokyny pro bezpečné zacházení

P210 Chraňte před teplem, horkými povrchy, jiskrami, otevřeným ohněm a jinými zdroji zapálení.
Zákaz kouření.

P241 Používejte elektrické/ventilační/osvětlovací/zařízení do výbušného prostředí.

P261 Zamezte vdechování prachu/dýmu/plynu/mlhy/par/aerosolů.

P280 Používejte ochranné rukavice/ochranný oděv/ochranné brýle/obličejový štít.

P303+P361+P353 PŘI STYKU S KŮŽÍ (nebo s vlasy): Veškeré kontaminované části oděvu okamžitě svlékněte.
Opláchněte kůži vodou/osprchujte.

P501 Obsah/nádobu likvidujte v souladu s místními/regionálními/národními/mezinárodními předpisy.

· 2.3 Další nebezpečnost

· Výsledky posouzení PBT a vPvB

· **PBT:** Nedá se použít.

· **vPvB:** Nedá se použít.

ODDÍL 3: Složení/informace o složkách

· 3.1 Chemická charakteristika: Látky

· Číslo CAS:

5989-27-5 d-limonen

· Identifikační číslo(čísla)

· Číslo ES: 227-813-5

· Indexové číslo: 601-029-00-7

ODDÍL 4: Pokyny pro první pomoc

· 4.1 Popis první pomoci

· Všeobecné pokyny:

Příznaky otravy se mohou projevit až po mnoha hodinách, proto je nutný lékařský dohled nejméně 48 hodin po nehodě.

· Při nadýchání:

Bohatý přívod čerstvého vzduchu a pro jistotu vyhledat lékaře.

Při bezvědomí uložit a přepravit ve stabilní poloze na boku.

· Při styku s kůží: Ihned omýt vodou a mýdlem a dobře opláchnout.

· **Při zasažení očí:** Oči s otevřenými víčky několik minut vyplachovat proudem tekoucí vody.

· **Při požití:** Ihned vyhledat lékaře.

· 4.2 Nejdůležitější akutní a opožděné symptomy a účinky Další relevantní informace nejsou k dispozici.

(pokračování na straně 3)

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- **4.3 Pokyn týkající se okamžité lékařské pomoci a zvláštního ošetření**
Další relevantní informace nejsou k dispozici.

(pokračování strany 2)

ODDÍL 5: Opatření pro hašení požáru

- **5.1 Hasiva**
- **Vhodná hasiva:** CO₂, písek, hasící prášek. Nepoužít vodu.
- **Nevhodná hasiva:** Plný proud vody
- **5.2 Zvláštní nebezpečnost vyplývající z látky nebo směsi** Další relevantní informace nejsou k dispozici.
- **5.3 Pokyny pro hasiče**
- **Zvláštní ochranné prostředky pro hasiče:** Nejsou nutná žádná zvláštní opatření.

ODDÍL 6: Opatření v případě náhodného úniku

- **6.1 Opatření na ochranu osob, ochranné prostředky a nouzové postupy**
Nosit ochrannou výstroj. Nechráněné osoby se nesmí přibližovat.
- **6.2 Opatření na ochranu životního prostředí:**
Při vniknutí do kanalizace nebo vodního toku informovat příslušné orgány.
Nenechat proniknout do kanalizace/povrchových vod/podzemních vod.
- **6.3 Metody a materiál pro omezení úniku a pro čištění:**
Sebrat s materiály, vážícími kapaliny (písek, šterkový písek, pojidla kyselin, universální pojidla, piliny).
Kontaminovaný materiál odstranit jako odpad podle bodu 13.
Zajistit dostatečné větrání.
Nesplachovat vodou nebo čistícími prostředky, obsahujícími vodu.
- **6.4 Odkaz na jiné oddíly**
Informace o bezpečnému zacházení viz kapitola 7.
Informace o osobní ochranné výstroji viz kapitola 8.
Informace k odstranění viz kapitola 13.

ODDÍL 7: Zacházení a skladování

- **7.1 Opatření pro bezpečné zacházení**
Na pracovišti zabezpečit dobré větrání a odsávání.
Zamezit vytváření aerosolů.
- **Upozornění k ochraně před ohněm a explozí:**
Nepřibližovat se ze zápalnými zdroji - nekouřit.
Chránit před horkem.
Zajistit proti elektrostatickému náboji.
- **7.2 Podmínky pro bezpečné skladování látek a směsí včetně neslučitelných látek a směsí**
- **Pokyny pro skladování:**
- **Požadavky na skladovací prostory a nádoby:** Žádné zvláštní požadavky.
- **Upozornění k hromadnému skladování:** Není nutné.
- **Další údaje k podmínkám skladování:**
Nádrž držet neprodyšně uzavřenou.
Chránit před horkem a přímým slunečním světlem.
- **7.3 Specifické konečné / specifická konečná použití** Další relevantní informace nejsou k dispozici.

ODDÍL 8: Omezování expozice / osobní ochranné prostředky

- **Technická opatření:** Žádné další údaje, viz bod 7.

(pokračování na straně 4)

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(pokračování strany 3)

- **8.1 Kontrolní parametry**
- **Kontrolní parametry:** Odpadá
- **Další upozornění:** Jako podklad sloužily při zhotovení platné listiny.
- **8.2 Omezování expozice**
- **Osobní ochranné prostředky:**
- **Všeobecná ochranná a hygienická opatření:**
Zdržovat od potravin, nápojů a krmiv.
Zašpiněné, nasáknuté šaty ihned vysvléci.
Před přestávkami a po práci umýt ruce.
Zabránit styku s pokožkou.
Zamezit styku s pokožkou a zrakem.
- **Ochrana dýchacích orgánů:**
Při krátkodobém nebo nízkém zatížení použít dýchací přístroj s filtrem, při intenzivním nebo delším zatížení se musí použít dýchací přístroj nezávislý na okolním vzduchu.
- **Ochrana rukou:**



Ochranné rukavice

Materiál rukavic musí být nepropustný a odolný proti produktu / látce / směsi.
Vzhledem k tomu, že chybí testy, není možné doporučit materiál rukavic pro produkt / přípravek / chemickou směs.
Výběr materiálu rukavic proveďte podle času průniku, permeability a degradace.

- **Materiál rukavic**
Správný výběr rukavic nezávisí jen na materiálu, ale také na dalších kritériích, která se liší podle výrobce.
- **Doba průniku materiálem rukavic**
Je nutno u výrobce rukavic zjistit a dodržovat přesné časy průniku materiálem ochranných rukavic.
- **Ochrana očí:**



Uzavřené ochranné brýle

ODDÍL 9: Fyzikální a chemické vlastnosti

- **9.1 Informace o základních fyzikálních a chemických vlastnostech**
- **Všeobecné údaje**
- **Vzhled:**

Skupenství:	Tekutina
Barva:	Bezbarvá
Zápach:	Po plodech
Prahová hodnota zápachu:	Není určeno.
- **Hodnota pH:** Není určeno.
- **Změna stavu**

Bod tání/bod tuhnutí:	-74,3 °C
Počáteční bod varu a rozmezí bodu varu:	173 °C
- **Bod vzplanutí:** 43 °C
- **Hořlavost (pevné látky, plyny):** Nedá se použít.

(pokračování na straně 5)

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(pokračování strany 4)

· Zápalná teplota:	255 °C
· Teplota rozkladu:	Není určeno.
· Teplota samovznícení:	Není určeno.
· Výbušné vlastnosti:	<i>I když produktu nehrozí nebezpečí exploze, je přesto možné nebezpečí exploze ve směsi par se vzduchem.</i>
· Meze výbušnosti:	
Dolní mez:	0,7 Vol %
Horní mez:	6,1 Vol %
· Tlak páry při 20 °C:	2,3 hPa
· Hustota při 20 °C:	0,848 g/cm ³
· Relativní hustota	Není určeno.
· Hustota páry:	Není určeno.
· Rychlost odpařování	Není určeno.
· Rozpustnost ve / směšitelnost s vodě:	Vůbec nemísitelná nebo jen málo mísitelná.
· Rozdělovací koeficient: n-oktanol/voda:	Není určeno.
· Viskozita:	
Dynamicky:	Není určeno.
Kinematicky:	Není určeno.
· Obsah ředidel:	
Organická ředidla:	100,0 %
VOC (EC)	100,00 %
Obsah netěkavých složek:	0,0 %
· 9.2 Další informace	<i>Další relevantní informace nejsou k dispozici.</i>

ODDÍL 10: Stálost a reaktivita

- **10.1 Reaktivita** Další relevantní informace nejsou k dispozici.
- **10.2 Chemická stabilita**
- **Termický rozklad / Podmínky, kterých je nutno se vyvarovat:**
Nedochází k rozkladu při doporučeném způsobu použití.
- **10.3 Možnost nebezpečných reakcí** Žádné nebezpečné reakce nejsou známy.
- **10.4 Podmínky, kterým je třeba zabránit** Další relevantní informace nejsou k dispozici.
- **10.5 Neslučitelné materiály:** Další relevantní informace nejsou k dispozici.
- **10.6 Nebezpečné produkty rozkladu:** Nejsou známy žádné nebezpečné produkty při rozkladu.

ODDÍL 11: Toxikologické informace

- **11.1 Informace o toxikologických účincích**
- **Akutní toxicita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

· **Zařazení relevantní hodnoty LD/LC 50:**

5989-27-5 d-limonen

Orálně	LD50	4.400 mg/kg (rat)
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(pokračování na straně 6)

Bezpečnostní list

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Obchodní označení: HISTO-CLEAR

(pokračování strany 5)

- **Primární dráždivé účinky:**
- **Žíravost/dráždivost pro kůži**
Dráždí kůži.
- **Vážné poškození očí / podráždění očí** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Senzibilizace dýchacích cest / senzibilizace kůže**
Může vyvolat alergickou kožní reakci.
- **Účinky CMR (karcinogenita, mutagenita a toxicita pro reprodukci)**
- **Mutagenita v zárodečných buňkách** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Karcinogenita** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro reprodukci** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro specifické cílové orgány – jednorázová expozice**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Toxicita pro specifické cílové orgány – opakovaná expozice**
Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.
- **Nebezpečnost při vdechnutí** Na základě dostupných údajů nejsou kritéria pro klasifikaci splněna.

ODDÍL 12: Ekologické informace

- **12.1 Toxicita**
- **Aquatická toxicita:** Další relevantní informace nejsou k dispozici.
- **12.2 Perzistence a rozložitelnost** Další relevantní informace nejsou k dispozici.
- **12.3 Bioakumulační potenciál** Další relevantní informace nejsou k dispozici.
- **12.4 Mobilita v půdě** Další relevantní informace nejsou k dispozici.
- **Ekotoxické účinky:**
- **Poznámka:** Velmi jedovatý pro ryby.
- **Další ekologické údaje:**
- **Všeobecná upozornění:**
Třída ohrožení vody 2 (zařazení v listině): ohrožuje vodu
Nesmí vniknout do spodní vody, povodí nebo kanalizace.
Ohrožuje pitnou vodu už při proniknutí malého množství do zeminy.
V povodích je také jedovatá pro ryby a plankton.
velmi jedovatá pro vodní organismy
- **12.5 Výsledky posouzení PBT a vPvB**
- **PBT:** Nedá se použít.
- **vPvB:** Nedá se použít.
- **12.6 Jiné nepříznivé účinky** Další relevantní informace nejsou k dispozici.

ODDÍL 13: Pokyny pro odstraňování

- **13.1 Metody nakládání s odpady**
- **Doporučení:** Nesmí se odstraňovat společně s odpady z domácnosti. Nepřipustit únik do kanalizace.
- **Kontaminované obaly:**
- **Doporučení:** Odstranění podle příslušných předpisů.

ODDÍL 14: Informace pro přepravu

- **14.1 UN číslo**
- **ADR, IMDG, IATA**

UN2319

(pokračování na straně 7)

Bezpečnostní list podle 1907/2006/ES, Článek 31

Datum vydání: 17.05.2019

Revize: 17.05.2019

Obchodní označení: HISTO-CLEAR

(pokračování strany 6)

<ul style="list-style-type: none"> · 14.2 Oficiální (OSN) pojmenování pro přepravu · ADR · IMDG · IATA 	<p>2319 UHLOVODÍKY TERPENICKÉ, J.N., OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ</p> <p>TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT</p> <p>TERPENE HYDROCARBONS, N.O.S.</p>
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- 14.3 Třída/třídy nebezpečnosti pro přepravu

- ADR, IMDG



- třída 3 Hořlavé kapaliny
- Etiketa 3

- IATA



- Class 3 Hořlavé kapaliny
- Label 3

- 14.4 Obalová skupina

- ADR, IMDG, IATA III

- 14.5 Nebezpečnost pro životní prostředí:

- Látka znečišťující moře: Symbol (ryba a strom)
- Zvláštní označení (ADR): Symbol (ryba a strom)

- 14.6 Zvláštní bezpečnostní opatření pro uživatele Varování: Hořlavé kapaliny

- Kemlerovo číslo: 30
- EMS-skupina: F-E,S-D
- Stowage Category A

- 14.7 Hromadná přeprava podle přílohy II úmluvy

- MARPOL a předpisu IBC Nedá se použít.

- Přeprava/další údaje:

- ADR
- Omezené množství (LQ) 5L
- Vyňatá množství (EQ) Kód: E1
- Nejvyšší čisté množství na vnitřní obal: 30 ml
- Nejvyšší čisté množství na vnější obal: 1000 ml
- Přepravní kategorie 3
- Kód omezení pro tunely: D/E

- IMDG

- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 1000 ml

(pokračování na straně 8)

Bezpečnostní list

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(pokračování strany 7)

· UN "Model Regulation": UN 2319 UHLOVODÍKY TERPENICKÉ, J.N., 3, III, OHROŽUJÍCÍ ŽIVOTNÍ PROSTŘEDÍ

ODDÍL 15: Informace o předpisech

- 15.1 Předpisy týkající se bezpečnosti, zdraví a životního prostředí/specifické právní předpisy týkající se látky nebo směsi
- Rady 2012/18/EU
- Nebezpečné látky jmenovitě uvedené - PŘÍLOHA I Látka neobsažena.
- Kategorie Seveso
E1 Nebezpečnost pro vodní prostředí
P5c HOŘLAVÉ KAPALINY
- Kvalifikační množství (v tunách) při uplatnění požadavků pro podlimitní množství 100 t
- Kvalifikační množství (v tunách) při uplatnění požadavků pro nadlimitní množství 200 t
- Rady (ES) č. 1907/2006 PŘÍLOHA XVII Omezující podmínky: 3
- 15.2 Posouzení chemické bezpečnosti: Posouzení chemické bezpečnosti nebylo provedeno.

ODDÍL 16: Další informace

Údaje se opírají o dnešní stav našich vědomostí, nepředstavují však záruku vlastností produktu a nevznikají tak žádné smluvní právní vztahy.

· Zkratky a akronymy:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Hořlavé kapaliny – Kategorie 3
 Skin Irrit. 2: Žíravost/dráždivost pro kůži – Kategorie 2
 Skin Sens. 1: Senzibilizace kůže – Kategorie 1
 Aquatic Acute 1: Nebezpečnost pro vodní prostředí - akutní nebezpečnost pro vodní prostředí – Kategorie 1
 Aquatic Chronic 1: Nebezpečnost pro vodní prostředí - dlouhodobá nebezpečnost pro vodní prostředí – Kategorie 1

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RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

· 1.1 Productidentificatie

· Handelsnaam: **HISTO-CLEAR**

· Artikelnummer: 64110-01, 64110-04, 64110-10

· CAS-nummer:
5989-27-5

· EC-nummer:
227-813-5

· Catalogusnummer:
601-029-00-7

· 1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik

Geen verdere relevante informatie verkrijgbaar.

· Toepassing van de stof / van de bereiding *Laboratoriumchemicaliën*

· 1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad

· Fabrikant/leverancier:

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: info@emsdiasum.com

www.emsdiasum.com

Aurion

Binnenhaven 5

6709 PD Wageningen

The Netherlands

Tel: 31 317 415094

Fax: 31 317 415955

email: info@aurion.nl

· Inlichtingengevende sector: *Product safety department*

· 1.4 Telefoonnummer voor noodgevallen:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

RUBRIEK 2: Identificatie van de gevaren

· 2.1 Indeling van de stof of het mengsel

· Indeling overeenkomstig Verordening (EG) nr. 1272/2008



GHS02 vlam

Flam. Liq. 3 H226 Ontvlambare vloeistof en damp.



GHS09 milieu

Aquatic Acute 1 H400 Zeer giftig voor in het water levende organismen.

Aquatic Chronic 1 H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.



GHS07

(Vervolg op blz. 2)

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(Vervolg van blz. 1)

Skin Irrit. 2 H315 Veroorzaakt huidirritatie.
 Skin Sens. 1 H317 Kan een allergische huidreactie veroorzaken.

· 2.2 Etiketteringselementen

· Etikettering overeenkomstig Verordening (EG) nr. 1272/2008

De stof/product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.

· Gevarenpictogrammen



GHS02 GHS07 GHS09

· Signaalwoord Waarschuwing

· Gevaaraanduidende componenten voor de etikettering:

(R)-p-mentha-1,8-dieen

· Gevarenaanduidingen

H226 Ontvlambare vloeistof en damp.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.

· Veiligheidsaanbevelingen

P210 Verwijderd houden van warmte, hete oppervlakken, vonken, open vuur en andere ontstekingsbronnen. Niet roken.

P241 Explosie veilige elektrische/ventilatie-/verlichtings- apparatuur gebruiken.

P261 Inademing van stof/rook/gas/nevel/damp/spuitnevel vermijden.

P280 Beschermende handschoenen/beschermende kleding/oogbescherming/gelaatsbescherming dragen.

P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen/afdouchen.

P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

· 2.3 Andere gevaren

· Resultaten van PBT- en zPzB-beoordeling

· PBT: Niet bruikbaar.

· zPzB: Niet bruikbaar.

RUBRIEK 3: Samenstelling en informatie over de bestanddelen

· 3.1 Chemische karakterisering: Stoffen

· CAS-Nr. omschrijving

5989-27-5 (R)-p-mentha-1,8-dieen

· Identificatienummer(s)

· EC-nummer: 227-813-5

· Catalogusnummer: 601-029-00-7

RUBRIEK 4: Eerstehulpmaatregelen

· 4.1 Beschrijving van de eerstehulpmaatregelen

· Algemene informatie:

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

(Vervolg op blz. 3)

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- **Na het inademen:**
Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.
Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- **Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.
- **Na oogcontact:** Ogen bij geopend ooglid meerdere minuten met stromend water spoelen
- **Na inslikken:** Onmiddellijk arts raadplegen.
- **4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.
- **4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**
Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 5: Brandbestrijdingsmaatregelen

- **5.1 Blusmiddelen**
- **Geschikte blusmiddelen:** CO₂, zand, bluspoeder. Geen water gebruiken.
- **Blusmiddelen die uit veiligheidsoogpunt niet geschikt zijn:** Krachtige waterstraal
- **5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**
Geen verdere relevante informatie verkrijgbaar.
- **5.3 Advies voor brandweerlieden**
- **Speciale beschermende kleding:** Geen bijzondere maatregelen nodig.

RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

- **6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**
Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.
- **6.2 Milieuvoorzorgsmaatregelen:**
Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.
Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.
- **6.3 Insluitings- en reinigingsmethoden en -materiaal:**
Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.
Besmet materiaal zoals afval volgens punt 13 verwijderen.
Voor voldoende ventilatie zorgen.
Niet met water of waterachtige reinigingsmiddelen wegspoelen.
- **6.4 Verwijzing naar andere rubrieken**
Informatie inzake veilig gebruik - zie hoofdstuk 7.
Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.
Informatie inzake berging - zie hoofdstuk 13.

RUBRIEK 7: Hantering en opslag

- **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**
Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.
Aërosolvorming vermijden.
- **Informatie m.b.t. brand- en ontploffingsgevaar:**
Onststekingsbronnen op afstand houden - niet roken.
Beschermen tegen hitte.
Maatregelen treffen tegen ontlading van statische elektriciteit.
- **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**
- **Opslag:**
- **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.
- **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.

(Vervolg op blz. 4)

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- **Verdere inlichtingen over eisen m.b.t. de opslag:**
Tanks ondoordringbaar gesloten houden.
Tegen hitte en directe zonnestralen beschermen.
- **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

- **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.
- **8.1 Controleparameters**
- **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:** Vervalt.
- **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.
- **8.2 Maatregelen ter beheersing van blootstelling**
- **Persoonlijke beschermingsvoorzieningen:**
- **Algemene beschermings- en gezondheidsmaatregelen:**
Verwijderd houden van eet- en drinkwaren.
Verontreinigde kleding onmiddellijk uittrekken.
Vóór de pauze en aan het einde van werktijd handen wassen.
Aanraking met de huid vermijden.
Aanraking met de ogen en de huid vermijden.
- **Ademhalingsbescherming:**
Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.
- **Handbescherming:**



Veiligheidshandschoenen

- Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliënmengsel afgegeven worden.
Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.
- **Handschoenmateriaal**
De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant.
 - **Doordringingstijd van het handschoenmateriaal**
De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.
 - **Oogbescherming:**



Nauw aansluitende veiligheidsbril

RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**
- **Algemene gegevens**
- **Voorkomen:**

Vorm:	Vloeistof
Kleur:	Kleurloos

(Vervolg op blz. 5)

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(Vervolg van blz. 4)

· Geur:	Vruchtachtig
· Geurdrempelwaarde:	Niet bepaald.
· pH-waarde:	Niet bepaald.
· Toestandsverandering	
Smelt-/vriespunt:	-74,3 °C
Beginkookpunt en kooktraject:	173 °C
· Vlampunt:	43 °C
· Ontvlambaarheid (vast, gas):	Niet bruikbaar.
· Ontstekingstemperatuur:	255 °C
· Ontledingstemperatuur:	Niet bepaald.
· Zelfontbrandingstemperatuur:	Niet bepaald.
· Ontploffingseigenschappen:	Het produkt is niet ontploffingsgevaarlijk, maar de vorming van ontploffingsgevaarlijke damp-/luchtmengsels is mogelijk.
· Ontploffingsgrenzen:	
Onderste:	0,7 Vol %
Bovenste:	6,1 Vol %
· Dampspanning bij 20 °C:	2,3 hPa
· Dichtheid bij 20 °C:	0,848 g/cm ³
· Relatieve dichtheid	Niet bepaald.
· Dampdichtheid	Niet bepaald.
· Verdampingssnelheid	Niet bepaald.
· Oplosbaarheid in/mengbaarheid met Water:	Niet resp. gering mengbaar.
· Verdelingscoëfficiënt: n-octanol/water:	Niet bepaald.
· Viscositeit	
Dynamisch:	Niet bepaald.
Kinematisch:	Niet bepaald.
· Oplosmiddelgehalte:	
Organisch oplosmiddel:	100,0 %
VOC (EG)	100,00 %
Gehalte aan vaste bestanddelen:	0,0 %
· 9.2 Overige informatie	Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

(Vervolg op blz. 6)

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RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

- **Indelingsrelevantie LD/LC50-waarden:**

5989-27-5 (R)-p-mentha-1,8-dieen

Oraal	LD50	4.400 mg/kg (rat)
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- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Sensibilisatie van de luchtwegen/de huid**
Kan een allergische huidreactie veroorzaken.
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Ecotoxische effecten:**
- **Opmerking:** Zeer giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**
Waterbezwaarlijkheid (NL): A(1) zeer vergiftig voor in water levende organismen kan in aquatische milieu op lange termijn schadelijke effecten veroorzaken
Gevaar voor water klasse 2 (D) (Lijstclassificatie): gevaar voor water
Niet lozen in grondwater, in oppervlaktewater of in riolering.
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.
In oppervlaktewater ook giftig voor vissen en plankton.
zeer giftig voor in het water levende organismen
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terecht komen.

(Vervolg op blz. 7)

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- Niet gereinigde verpakkingen:
- Aanbeveling: Afvalverwijdering volgens overheidsbepalingen.

RUBRIEK 14: Informatie met betrekking tot het vervoer

- 14.1 VN-nummer
- ADR, IMDG, IATA

UN2319

- 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN

- ADR

2319 TERPEEN-KOOLWATERSTOFFEN, N.E.G.,
MILIEUGEVAARLIJK

- IMDG

TERPENE HYDROCARBONS, N.O.S., MARINE
POLLUTANT

- IATA

TERPENE HYDROCARBONS, N.O.S.

- 14.3 Transportgevarenklasse(n)

- ADR, IMDG



- klasse

3 Brandbare vloeistoffen

- Etiket

3

- IATA



- Class

3 Brandbare vloeistoffen

- Label

3

- 14.4 Verpakkingsgroep:

- ADR, IMDG, IATA

III

- 14.5 Milieugevaren:

- Marine pollutant:

Symbool (vis en boom)

- Bijzondere kenmerking (ADR):

Symbool (vis en boom)

- 14.6 Bijzondere voorzorgen voor de gebruiker

Waarschuwing: Brandbare vloeistoffen

- Kemler-getal:

30

- EMS-nummer:

F-E,S-D

- Stowage Category

A

- 14.7 Vervoer in bulk overeenkomstig bijlage II bij

Marpol en de IBC-code

Niet bruikbaar.

- Transport/verdere gegevens:

- ADR

- Beperkte hoeveelheden (LQ)

5L

- Uitgezonderde hoeveelheden (EQ)

Code: E1

Grootste netto hoeveelheid per binnenverpakking: 30 ml

Grootste netto hoeveelheid per buitenverpakking: 1000 ml

- Vervoerscategorie

3

(Vervolg op blz. 8)

Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 17.05.2019

Herziening van: 17.05.2019

Handelsnaam: HISTO-CLEAR

(Vervolg van blz. 7)

· Tunnelbeperkingscode	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· VN "Model Regulation":	UN 2319 TERPEEN-KOOLWATERSTOFFEN, N.E.G., 3, III, MILIEUGEVAARLIJK

RUBRIEK 15: Regelgeving

· 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

· SZW-lijst van kankerverwekkende stoffen

De stof is niet aanwezig.

· SZW-lijst van mutagene stoffen

De stof is niet aanwezig.

· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid

De stof is niet aanwezig.

· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

De stof is niet aanwezig.

· NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding

De stof is niet aanwezig.

· Lijst Zeer Zorgwekkende Stoffen (ZZS)

De stof is niet aanwezig.

· Lijst van Potentieel Zeer Zorgwekkende Stoffen

De stof is niet aanwezig.

· Richtlijn 2012/18/EU

· **Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I** De stof is niet aanwezig.

· Seveso-categorie

E1 Gevaar voor het aquatisch milieu

P5c ONTVLAMBARE VLOEISTOFFEN

· **Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 100 t**

· **Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 200 t**

· **Verordening (EG) nr. 1907/2006 BIJLAGE XVII Beperkingsvoorwaarden: 3**

· Nationale voorschriften:

· Gevaarklasse v. water:

Waterbezwaarlijkheid (NL): A(1) zeer vergiftig voor in water levende organismen kan in aquatische milieu op lange termijn schadelijke effecten veroorzaken

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

(Vervolg op blz. 9)

**Veiligheidsinformatieblad
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(Vervolg van blz. 8)

Afkortingen en acroniemen:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Ontvlambare vloeistoffen – Categorie 3

Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2

Skin Sens. 1: Sensibilisatie van de huid – Categorie 1

Aquatic Acute 1: Gevaar voor het aquatisch milieu - acuut aquatisch gevaar – Categorie 1

Aquatic Chronic 1: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 1

NL

Fiche de données de sécurité

selon 1907/2006/CE, Article 31

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RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** HISTO-CLEAR
- **Code du produit:** 64110-01, 64110-04, 64110-10
- **No CAS:**
5989-27-5
- **Numéro CE:**
227-813-5
- **Numéro index:**
601-029-00-7
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS02 flamme

Flam. Liq. 3 H226 Liquide et vapeurs inflammables.



GHS09 environnement

Aquatic Acute 1 H400 Très toxique pour les organismes aquatiques.

Aquatic Chronic 1 H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Skin Irrit. 2 H315 Provoque une irritation cutanée.

Skin Sens. 1 H317 Peut provoquer une allergie cutanée.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** La substance est classifiée et étiquetée selon le règlement CLP.

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Nom du produit: HISTO-CLEAR

(suite de la page 1)

· Pictogrammes de danger



GHS02 GHS07 GHS09

· Mention d'avertissement Attention

· Composants dangereux déterminants pour l'étiquetage:

(R)-p-mentha-1,8-diène

· Mentions de danger

H226 Liquide et vapeurs inflammables.

H315 Provoque une irritation cutanée.

H317 Peut provoquer une allergie cutanée.

H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· Conseils de prudence

P210 Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer.

P241 Utiliser du matériel électrique/de ventilation/d'éclairage antidéflagrant.

P261 Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.

P280 Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau/Se doucher.

P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· 2.3 Autres dangers

· Résultats des évaluations PBT et vPvB

· **PBT:** Non applicable.

· **vPvB:** Non applicable.

RUBRIQUE 3: Composition/informations sur les composants

· 3.1 Caractérisation chimique: Substances

· No CAS Désignation

5989-27-5 (R)-p-mentha-1,8-diène

· Code(s) d'identification

· Numéro CE: 227-813-5

· Numéro index: 601-029-00-7

RUBRIQUE 4: Premiers secours

· 4.1 Description des premiers secours

· Remarques générales:

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

· Après inhalation:

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· Après contact avec la peau: Laver immédiatement à l'eau et au savon et bien rincer.

· Après contact avec les yeux:

Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.

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- **Après ingestion:** Consulter immédiatement un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**
Pas d'autres informations importantes disponibles.

RUBRIQUE 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** CO₂, sable, poudre d'extinction. Ne pas utiliser d'eau.
- **Produits extincteurs déconseillés pour des raisons de sécurité:** Jet d'eau à grand débit
- **5.2 Dangers particuliers résultant de la substance ou du mélange**
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**
Porter un équipement de sécurité. Eloigner les personnes non protégées.
- **6.2 Précautions pour la protection de l'environnement:**
En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.
Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).
Évacuer les matériaux contaminés en tant que déchets conformément au point 13.
Assurer une aération suffisante.
Ne pas rincer à l'eau ou aux produits nettoyants aqueux.
- **6.4 Référence à d'autres rubriques**
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.
Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**
Veiller à une bonne ventilation/aspiration du poste de travail.
Éviter la formation d'aérosols.
- **Préventions des incendies et des explosions:**
Tenir à l'abri des sources d'inflammation - ne pas fumer.
Tenir à l'abri de la chaleur.
Prendre des mesures contre les charges électrostatiques.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:**
Tenir les emballages hermétiquement fermés.
Protéger de la forte chaleur et du rayonnement direct du soleil.

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· 7.3 Utilisation(s) finale(s) particulière(s) Pas d'autres informations importantes disponibles.

RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

· **Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

· **8.1 Paramètres de contrôle**

· **Composants présentant des valeurs-seuil à surveiller par poste de travail:** Néant

· **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

· **8.2 Contrôles de l'exposition**

· **Equipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Eviter tout contact avec la peau.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.

À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés ne dépend pas seulement du matériau, mais également d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**



Lunettes de protection hermétiques

RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

Forme:

Liquide

Couleur:

Incolore

· **Odeur:**

Fruitée

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· Seuil olfactif:	Non déterminé.
· valeur du pH:	Non déterminé.
· Changement d'état Point de fusion/point de congélation:	-74,3 °C
Point initial d'ébullition et intervalle d'ébullition:	173 °C
· Point d'éclair	43 °C
· Inflammabilité (solide, gaz):	Non applicable.
· Température d'inflammation:	255 °C
· Température de décomposition:	Non déterminé.
· Température d'auto-inflammabilité:	Non déterminé.
· Propriétés explosives:	Le produit n'est pas explosif; toutefois, des mélanges explosifs vapeur-air peuvent se former.
· Limites d'explosion: Inférieure:	0,7 Vol %
Supérieure:	6,1 Vol %
· Pression de vapeur à 20 °C:	2,3 hPa
· Densité à 20 °C:	0,848 g/cm ³
· Densité relative	Non déterminé.
· Densité de vapeur:	Non déterminé.
· Taux d'évaporation:	Non déterminé.
· Solubilité dans/miscibilité avec l'eau:	Pas ou peu miscible
· Coefficient de partage: n-octanol/eau:	Non déterminé.
· Viscosité: Dynamique:	Non déterminé.
Cinématique:	Non déterminé.
· Teneur en solvants: Solvants organiques:	100,0 %
VOC (CE)	100,00 %
Teneur en substances solides:	0,0 %
· 9.2 Autres informations	Pas d'autres informations importantes disponibles.

RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

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RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
 - **Toxicité aiguë** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- | | | |
|--|------|-------------------|
| Valeurs LD/LC50 déterminantes pour la classification: | | |
| 5989-27-5 (R)-p-mentha-1,8-diène | | |
| Oral | LD50 | 4.400 mg/kg (rat) |
- **Effet primaire d'irritation:**
 - **Corrosion cutanée/irritation cutanée**
Provoque une irritation cutanée.
 - **Lésions oculaires graves/irritation oculaire**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Sensibilisation respiratoire ou cutanée**
Peut provoquer une allergie cutanée.
 - **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
 - **Mutagénicité sur les cellules germinales**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Toxicité pour la reproduction**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Toxicité spécifique pour certains organes cibles - exposition unique**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Toxicité spécifique pour certains organes cibles - exposition répétée**
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
 - **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Effets écotoxiques:**
- **Remarque:** Très toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**
Catégorie de pollution des eaux 2 (D) (classification selon liste): polluant
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.
Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.
Dans les eaux, également toxique pour les poissons et le plancton.
Très toxique pour organismes aquatiques.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.

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- Emballages non nettoyés:
- **Recommandation:** Evacuation conformément aux prescriptions légales.

RUBRIQUE 14: Informations relatives au transport

<ul style="list-style-type: none"> · 14.1 Numéro ONU · ADR, IMDG, IATA 	UN2319	
<ul style="list-style-type: none"> · 14.2 Désignation officielle de transport de l'ONU · ADR · IMDG · IATA 	2319 HYDROCARBURES TERPÉNIQUES, N.S.A., DANGEREUX POUR L'ENVIRONNEMENT TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.	
<ul style="list-style-type: none"> · 14.3 Classe(s) de danger pour le transport · ADR, IMDG 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Classe · Étiquette 	3 Liquides inflammables. 3
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> · Class · Label 	3 Liquides inflammables. 3
<ul style="list-style-type: none"> · 14.4 Groupe d'emballage · ADR, IMDG, IATA 	III	
<ul style="list-style-type: none"> · 14.5 Dangers pour l'environnement: · Marine Pollutant: · Marquage spécial (ADR): 	Signe conventionnel (poisson et arbre) Signe conventionnel (poisson et arbre)	
<ul style="list-style-type: none"> · 14.6 Précautions particulières à prendre par l'utilisateur · Indice Kemler: · No EMS: · Stowage Category 	Attention: Liquides inflammables. 30 F-E,S-D A	
<ul style="list-style-type: none"> · 14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC 	Non applicable.	
<ul style="list-style-type: none"> · Indications complémentaires de transport: 	<ul style="list-style-type: none"> · ADR · Quantités limitées (LQ) 	5L

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· Quantités exceptées (EQ)	Code: E1 Quantité maximale nette par emballage intérieur: 30 ml Quantité maximale nette par emballage extérieur: 1000 ml
· Catégorie de transport	3
· Code de restriction en tunnels	D/E
<hr style="border-top: 1px dashed #000;"/>	
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· "Règlement type" de l'ONU:	UN 2319 HYDROCARBURES TERPÉNIQUES, N.S.A., 3, III, DANGEREUX POUR L'ENVIRONNEMENT

RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** la substance n'est pas comprise
- **Catégorie SEVESO**
E1 Danger pour l'environnement aquatique
P5c LIQUIDES INFLAMMABLES
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas** 100 t
- **Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut** 200 t
- **RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII** Conditions de limitation: 3
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Acronymes et abréviations:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Liquides inflammables – Catégorie 3
Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2
Skin Sens. 1: Sensibilisation cutanée – Catégorie 1
Aquatic Acute 1: Dangers pour le milieu aquatique- toxicité aiguë pour le milieu aquatique – Catégorie 1
Aquatic Chronic 1: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 1

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ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

· **1.1 Produktidentifikator**

· **Handelsname:** HISTO-CLEAR

· **Artikelnummer:** 64110-01, 64110-04, 64110-10

· **CAS-Nummer:**

5989-27-5

· **EG-Nummer:**

227-813-5

· **Indexnummer:**

601-029-00-7

· **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**

Keine weiteren relevanten Informationen verfügbar.

· **Verwendung des Stoffes / des Gemisches** Laborchemikalien

· **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**

· **Hersteller/Lieferant:**

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: info@emsdiasum.com

www.emsdiasum.com

Science Services GmbH

Unterhachinger Str. 75

81737 München Germany

Tel: +49(0)89 18 93 668-0

safety@scienceservices.de

Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org

Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h

· **Auskunftgebender Bereich:** Product safety department

· **1.4 Notrufnummer:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

ABSCHNITT 2: Mögliche Gefahren

· **2.1 Einstufung des Stoffs oder Gemischs**

· **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS02 Flamme

Flam. Liq. 3 H226 Flüssigkeit und Dampf entzündbar.



GHS09 Umwelt

Aquatic Acute 1 H400 Sehr giftig für Wasserorganismen.

Aquatic Chronic 1 H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.

(Fortsetzung auf Seite 2)

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GHS07

Skin Irrit. 2 H315 Verursacht Hautreizungen.
 Skin Sens. 1 H317 Kann allergische Hautreaktionen verursachen.

- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**
Der Stoff ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS02 GHS07 GHS09

- **Signalwort** Achtung
- **Gefahrbestimmende Komponenten zur Etikettierung:**
(R)-p-Mentha-1,8-dien
- **Gefahrenhinweise**
H226 Flüssigkeit und Dampf entzündbar.
H315 Verursacht Hautreizungen.
H317 Kann allergische Hautreaktionen verursachen.
H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.
- **Sicherheitshinweise**
P210 Von Hitze, heißen Oberflächen, Funken, offenen Flammen und anderen Zündquellen fernhalten. Nicht rauchen.
P241 Explosionsgeschützte elektrische Geräte/Lüftungsanlagen/Beleuchtungsanlagen verwenden.
P261 Einatmen von Staub/Rauch/Gas/Nebel/Dampf/Aerosol vermeiden.
P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.1 Chemische Charakterisierung: Stoffe**
- **CAS-Nr. Bezeichnung**
5989-27-5 (R)-p-Mentha-1,8-dien
- **Identifikationsnummer(n)**
- **EG-Nummer:** 227-813-5
- **Indexnummer:** 601-029-00-7

DE

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ABSCHNITT 4: Erste-Hilfe-Maßnahmen

· 4.1 Beschreibung der Erste-Hilfe-Maßnahmen

· Allgemeine Hinweise:

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

· Nach Einatmen:

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

· Nach Hautkontakt: Sofort mit Wasser und Seife abwaschen und gut nachspülen.

· Nach Augenkontakt: Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.

· Nach Verschlucken: Sofort Arzt aufsuchen.

· 4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine weiteren relevanten Informationen verfügbar.

· 4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

· 5.1 Löschmittel

· Geeignete Löschmittel: CO₂, Sand, Löschpulver. Kein Wasser verwenden.

· Aus Sicherheitsgründen ungeeignete Löschmittel: Wasser im Vollstrahl

· 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Keine weiteren relevanten Informationen verfügbar.

· 5.3 Hinweise für die Brandbekämpfung

· Besondere Schutzausrüstung: Keine besonderen Maßnahmen erforderlich.

ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· 6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Schutzausrüstung tragen. Ungeschützte Personen fernhalten.

· 6.2 Umweltschutzmaßnahmen:

Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.

Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.

· 6.3 Methoden und Material für Rückhaltung und Reinigung:

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.

Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.

Für ausreichende Lüftung sorgen.

Nicht mit Wasser oder wäßrigen Reinigungsmitteln wegspülen.

· 6.4 Verweis auf andere Abschnitte

Informationen zur sicheren Handhabung siehe Abschnitt 7.

Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.

Informationen zur Entsorgung siehe Abschnitt 13.

ABSCHNITT 7: Handhabung und Lagerung

· 7.1 Schutzmaßnahmen zur sicheren Handhabung

Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.

Aerosolbildung vermeiden.

· Hinweise zum Brand- und Explosionsschutz:

Zündquellen fernhalten - nicht rauchen.

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*Vor Hitze schützen.**Maßnahmen gegen elektrostatische Aufladung treffen.*

- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**

- **Lagerung:**

- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.

- **Zusammenlagerungshinweise:** Nicht erforderlich.

- **Weitere Angaben zu den Lagerbedingungen:**

- Behälter dicht geschlossen halten.

- Vor Hitze und direkter Sonnenbestrahlung schützen.

- **Lagerklasse:**

- **Klassifizierung nach Betriebsicherheitsverordnung (BetrSichV):** Entzündbare Flüssigkeiten

- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.

- **8.1 Zu überwachende Parameter**

- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**

5989-27-5 (R)-p-Mentha-1,8-dien
AGW Langzeitwert: 28 mg/m ³ , 5 ml/m ³
4(II);DFG, H, Sh, Y

- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.

- **8.2 Begrenzung und Überwachung der Exposition**

- **Persönliche Schutzausrüstung:**

- **Allgemeine Schutz- und Hygienemaßnahmen:**

- Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

- Beschmutzte, getränkte Kleidung sofort ausziehen.

- Vor den Pausen und bei Arbeitsende Hände waschen.

- Berührung mit der Haut vermeiden.

- Berührung mit den Augen und der Haut vermeiden.

- **Atemschutz:**

- Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

- **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein.

Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

- **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.

- **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

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· Augenschutz:

Dichtschließende Schutzbrille

ABSCHNITT 9: Physikalische und chemische Eigenschaften

· 9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**· Allgemeine Angaben****· Aussehen:****Form:** Flüssigkeit**Farbe:** Farblos**· Geruch:** Fruchtartig**· Geruchsschwelle:** Nicht bestimmt.**· pH-Wert:** Nicht bestimmt.**· Zustandsänderung****Schmelzpunkt/Gefrierpunkt:** -74,3 °C**Siedebeginn und Siedebereich:** 173 °C**· Flammpunkt:** 43 °C**· Entzündbarkeit (fest, gasförmig):** Nicht anwendbar.**· Zündtemperatur:** 255 °C**· Zersetzungstemperatur:** Nicht bestimmt.**· Selbstentzündungstemperatur:** Nicht bestimmt.**· Explosive Eigenschaften:** Das Produkt ist nicht explosionsgefährlich, jedoch ist die Bildung explosionsgefährlicher Dampf-/Luftgemische möglich.**· Explosionsgrenzen:****Untere:** 0,7 Vol %**Obere:** 6,1 Vol %**· Dampfdruck bei 20 °C:** 2,3 hPa**· Dichte bei 20 °C:** 0,848 g/cm³**· Relative Dichte:** Nicht bestimmt.**· Dampfichte:** Nicht bestimmt.**· Verdampfungsgeschwindigkeit:** Nicht bestimmt.**· Löslichkeit in / Mischbarkeit mit****Wasser:** Nicht bzw. wenig mischbar.**· Verteilungskoeffizient: n-Octanol/Wasser:** Nicht bestimmt.**· Viskosität:****Dynamisch:** Nicht bestimmt.**Kinematisch:** Nicht bestimmt.**· Lösemittelgehalt:****Organische Lösemittel:** 100,0 %**VOC (EU)** 100,00 %**Festkörpergehalt:** 0,0 %

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· 9.2 Sonstige Angaben

Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
 - **Akute Toxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Einstufungsrelevante LD/LC50-Werte:**
- | | | |
|--|------|-------------------|
| 5989-27-5 (R)-p-Mentha-1,8-dien | | |
| Oral | LD50 | 4.400 mg/kg (rat) |
- **Primäre Reizwirkung:**
 - **Ätz-/Reizwirkung auf die Haut**
Verursacht Hautreizungen.
 - **Schwere Augenschädigung/-reizung** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Sensibilisierung der Atemwege/Haut**
Kann allergische Hautreaktionen verursachen.
 - **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
 - **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
 - **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Ökotoxische Wirkungen:**
- **Bemerkung:** Sehr giftig für Fische.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**
Wassergefährdungsklasse 2 (Listeneinstufung): deutlich wassergefährdend
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.

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Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.

In Gewässern auch giftig für Fische und Plankton.

sehr giftig für Wasserorganismen

· **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**

· **PBT:** Nicht anwendbar.

· **vPvB:** Nicht anwendbar.

· **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

ABSCHNITT 13: Hinweise zur Entsorgung

· **13.1 Verfahren der Abfallbehandlung**

· **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

· **Ungereinigte Verpackungen:**

· **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

ABSCHNITT 14: Angaben zum Transport

· **14.1 UN-Nummer**

· **ADR, IMDG, IATA**

UN2319

· **14.2 Ordnungsgemäße UN-Versandbezeichnung**

· **ADR**

2319 TERPENKOHLENWASSERSTOFFE, N.A.G.,
UMWELTGEFÄHRDEND

· **IMDG**

TERPENE HYDROCARBONS, N.O.S., MARINE
POLLUTANT

· **IATA**

TERPENE HYDROCARBONS, N.O.S.

· **14.3 Transportgefahrenklassen**

· **ADR, IMDG**



· **Klasse**

3 Entzündbare flüssige Stoffe

· **Gefahrzettel**

3

· **IATA**



· **Class**

3 Entzündbare flüssige Stoffe

· **Label**

3

· **14.4 Verpackungsgruppe**

· **ADR, IMDG, IATA**

III

· **14.5 Umweltgefahren:**

· **Marine pollutant:**

Symbol (Fisch und Baum)

· **Besondere Kennzeichnung (ADR):**

Symbol (Fisch und Baum)

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- **14.6 Besondere Vorsichtsmaßnahmen für den Verwender** Achtung: Entzündbare flüssige Stoffe
 - **Kemler-Zahl:** 30
 - **EMS-Nummer:** F-E,S-D
 - **Stowage Category** A
- **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.
- **Transport/weitere Angaben:**
-
- **ADR**
 - **Begrenzte Menge (LQ)** 5L
 - **Freigestellte Mengen (EQ)** Code: E1
Höchste Nettomenge je Innenverpackung: 30 ml
Höchste Nettomenge je Außenverpackung: 1000 ml
 - **Beförderungskategorie** 3
 - **Tunnelbeschränkungscode** D/E
-
- **IMDG**
 - **Limited quantities (LQ)** 5L
 - **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** UN 2319 TERPENKOHLENWASSERSTOFFE, N.A.G., 3, III, UMWELTGEFÄHRDEND

ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
 - **Richtlinie 2012/18/EU**
 - **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Der Stoff ist nicht enthalten.
 - **Seveso-Kategorie**
E1 Gewässergefährdend
P5c ENTZÜNDBARE FLÜSSIGKEITEN
 - **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse** 100 t
 - **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse** 200 t
 - **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII** Beschränkungsbedingungen: 3
 - **Nationale Vorschriften:**
 - **Technische Anleitung Luft:**
- | Klasse | Anteil in % |
|--------|-------------|
| NK | 100,0 |
- **Wassergefährdungsklasse:** WGK 2 (Listeneinstufung): deutlich wassergefährdend.
 - **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

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· Abkürzungen und Akronyme:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Entzündbare Flüssigkeiten – Kategorie 3

Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2

Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1

Aquatic Acute 1: Gewässergefährdend - akut gewässergefährdend – Kategorie 1

Aquatic Chronic 1: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 1

DE

Scheda di dati di sicurezza
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.05.2019

Revisione: 17.05.2019

SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

- **Denominazione commerciale:** HISTO-CLEAR
- **Articolo numero:** 64110-01, 64110-04, 64110-10
- **Numero CAS:**
5989-27-5
- **Numeri CE:**
227-813-5
- **Numero indice:**
601-029-00-7

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**
Non sono disponibili altre informazioni.

- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

Societa Italiana Chimici
Via Rio Nell Ellba 140
00138 Rome, Italy
Tel: 39 06 8800211
Fax: 39 30 06 8815313
Web: www.sichim.com

- **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

- **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS02 fiamma

Flam. Liq. 3 H226 Liquido e vapori infiammabili.



GHS09 ambiente

Aquatic Acute 1 H400 Molto tossico per gli organismi acquatici.

Aquatic Chronic 1 H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

Skin Irrit. 2 H315 Provoca irritazione cutanea.

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*Skin Sens. 1 H317 Può provocare una reazione allergica cutanea.***· 2.2 Elementi dell'etichetta****· Etichettatura secondo il regolamento (CE) n. 1272/2008***La sostanza è classificata ed etichettata conformemente al regolamento CLP.***· Pittogrammi di pericolo**

GHS02 GHS07 GHS09

· Avvertenza Attenzione**· Componenti pericolosi che ne determinano l'etichettatura:***(R)-p-menta-1,8-diene***· Indicazioni di pericolo***H226 Liquido e vapori infiammabili.**H315 Provoca irritazione cutanea.**H317 Può provocare una reazione allergica cutanea.**H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.***· Consigli di prudenza***P210 Tenere lontano da fonti di calore, superfici calde, scintille, fiamme libere o altre fonti di accensione. Non fumare.**P241 Utilizzare impianti elettrici/di ventilazione/d'illuminazione/a prova di esplosione.**P261 Evitare di respirare la polvere/i fumi/i gas/la nebbia/i vapori/gli aerosol.**P280 Indossare guanti/indumenti protettivi/Proteggere gli occhi/il viso.**P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.**P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.***· 2.3 Altri pericoli****· Risultati della valutazione PBT e vPvB****· PBT:** Non applicabile.**· vPvB:** Non applicabile.**SEZIONE 3: Composizione/informazioni sugli ingredienti****· 3.1 Caratteristiche chimiche: Sostanze****· Numero CAS***5989-27-5 (R)-p-menta-1,8-diene***· Numerof di identificazione****· Numeri CE:** 227-813-5**· Numero indice:** 601-029-00-7**SEZIONE 4: Misure di primo soccorso****· 4.1 Descrizione delle misure di primo soccorso****· Indicazioni generali:***I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.***· Inalazione:***Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.*

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- Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.
- **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.
- **Contatto con gli occhi:** Lavare con acqua corrente per alcuni minuti tenendo le palpebre ben aperte.
- **Ingestione:** Chiamare subito il medico.
- **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.
- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**
Non sono disponibili altre informazioni.

SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** CO₂, sabbia, polvere. Non usare acqua.
- **Mezzi di estinzione inadatti per motivi di sicurezza:** Getti d'acqua
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** Non sono richiesti provvedimenti particolari.

SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**
Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.
- **6.2 Precauzioni ambientali:**
In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.
Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**
Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).
Smaltimento del materiale contaminato conformemente al punto 13.
Provvedere ad una sufficiente areazione.
Non dilavare con acqua o detergenti liquidi.
- **6.4 Riferimento ad altre sezioni**
Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.
Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.
Per informazioni relative allo smaltimento vedere Capitolo 13.

SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**
Accurata ventilazione/aspirazione nei luoghi di lavoro.
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:**
Tenere lontano da fonti di calore, non fumare.
Proteggere dal calore.
Adottare provvedimenti contro cariche elettrostatiche.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:**
Mantenere i recipienti ermeticamente chiusi.
Proteggere dal calore e dai raggi diretti del sole.

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· **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **8.1 Parametri di controllo**
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:** Non Necessario.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**
Tenere lontano da cibo, bevande e foraggi.
Togliere immediatamente gli abiti contaminati.
Lavarsi le mani prima dell'intervallo o a lavoro terminato.
Evitare il contatto con la pelle.
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione. A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche. Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

- **Materiale dei guanti**
La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro.
- **Tempo di permeazione del materiale dei guanti**
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
- **Occhiali protettivi:**



Occhiali protettivi a tenuta

SEZIONE 9: Proprietà fisiche e chimiche

- **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**
- **Indicazioni generali**
- **Aspetto:**
- **Forma:** Liquido
- **Colore:** Incolore
- **Odore:** Simile a frutto
- **Soglia olfattiva:** Non definito.

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· valori di pH:	Non definito.
· Cambiamento di stato	
Punto di fusione/punto di congelamento:	-74,3 °C
Punto di ebollizione iniziale e intervallo di ebollizione:	173 °C
· Punto di infiammabilità:	43 °C
· Infiammabilità (solidi, gas):	Non applicabile.
· Temperatura di accensione:	255 °C
· Temperatura di decomposizione:	Non definito.
· Temperatura di autoaccensione:	Non definito.
· Proprietà esplosive:	Prodotto non è esplosivo, è tuttavia possibile la formazione di miscele di vapori/aria esplosive.
· Limiti di infiammabilità:	
Inferiore:	0,7 Vol %
Superiore:	6,1 Vol %
· Tensione di vapore a 20 °C:	2,3 hPa
· Densità a 20 °C:	0,848 g/cm ³
· Densità relativa	Non definito.
· Densità di vapore:	Non definito.
· Velocità di evaporazione	Non definito.
· Solubilità in/Miscibilità con acqua:	Poco e/o non miscibile.
· Coefficiente di ripartizione: n-ottanolo/acqua:	Non definito.
· Viscosità:	
Dinamica:	Non definito.
Cinematica:	Non definito.
· Tenore del solvente:	
Solventi organici:	100,0 %
VOC (CE)	100,00 %
Contenuto solido:	0,0 %
· 9.2 Altre informazioni	Non sono disponibili altre informazioni.

SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

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SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
 - **Tossicità acuta** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- | | | |
|---|------|-------------------|
| · Valori LD/LC50 rilevanti per la classificazione: | | |
| 5989-27-5 (R)-p-menta-1,8-diene | | |
| Orale | LD50 | 4.400 mg/kg (rat) |
- **Irritabilità primaria:**
 - **Corrosione/irritazione cutanea**
Provoca irritazione cutanea.
 - **Lesioni oculari gravi/irritazioni oculari gravi**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Sensibilizzazione respiratoria o cutanea**
Può provocare una reazione allergica cutanea.
 - **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
 - **Mutagenicità delle cellule germinali**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
 - **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** Molto tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**
Pericolosità per le acque classe 2 (D) (Classif. secondo le liste): pericoloso
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.
Tossico per pesci e plancton.
Molto tossico per gli organismi acquatici
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.

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- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

SEZIONE 14: Informazioni sul trasporto

· 14.1 Numero ONU · ADR, IMDG, IATA	UN2319
· 14.2 Nome di spedizione dell'ONU · ADR · IMDG · IATA	2319 IDROCARBURI TERPENICI, N.A.S., PERICOLOSO PER L'AMBIENTE TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.
· 14.3 Classi di pericolo connesso al trasporto · ADR, IMDG	
	
· Classe · Etichetta	3 Liquidi infiammabili 3
· IATA	
	
· Class · Label	3 Liquidi infiammabili 3
· 14.4 Gruppo di imballaggio · ADR, IMDG, IATA	III
· 14.5 Pericoli per l'ambiente: · Marine pollutant: · Marcatura speciali (ADR):	Simbolo (pesce e albero) Simbolo (pesce e albero)
· 14.6 Precauzioni speciali per gli utilizzatori · Numero Kemler: · Numero EMS: · Stowage Category	Attenzione: Liquidi infiammabili 30 F-E,S-D A
· 14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC	Non applicabile.
· Trasporto/ulteriori indicazioni:	
· ADR · Quantità limitate (LQ) · Quantità esenti (EQ) · Categoria di trasporto	5L Codice: E1 Quantità massima netta per imballaggio interno: 30 ml Quantità massima netta per imballaggio esterno: 1000 ml 3

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· Codice di restrizione in galleria	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2319 IDROCARBURI TERPENICI, N.A.S., 3, III, PERICOLOSO PER L'AMBIENTE

SEZIONE 15: Informazioni sulla regolamentazione

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
 - **Direttiva 2012/18/UE**
 - **Sostanze pericolose specificate - ALLEGATO I** La sostanza non è contenuta
 - **Categoria Seveso**
E1 Pericoloso per l'ambiente acquatico
P5c LIQUIDI INFIAMMABILI
 - **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 100 t**
 - **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 200 t**
 - **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII** Restrizioni: 3
 - **Disposizioni nazionali:**
 - **Istruzione tecnica aria:**
- | Classe | quota in % |
|--------|------------|
| NC | 100,0 |
- **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

SEZIONE 16: Altre informazioni

I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.

- **Abbreviazioni e acronimi:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Liquidi infiammabili – Categoria 3
Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2
Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1
Aquatic Acute 1: Pericoloso per l'ambiente acquatico - pericolo acuto per l'ambiente acquatico – Categoria 1
Aquatic Chronic 1: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 1

물질안전보건자료 GHS에 따라 라다

기압점: 2019.05.17

개정: 2019.05.17

1 화학제품과 회사에 관한 정보

제품제품제명

- 제품명: **HISTO-CLEAR**
- 상품번호: 64110-01, 64110-04, 64110-10
- ~~번~~호번호
5989-27-5
- EC 의번호:
227-813-5

색인색인번호:

601-029-00-7

해당 해당 물질이나 혼합물과 관련된 위험도 및 사용 금지용도 추가적인 정보가 존재하지 않습니다.

- ~~제품의 권고 용도와 사용 생애의 제한 사항~~ 실 화 학 품
- 안전데이터표(Safety Data Sheet)내 공급업체 권고사항 정보
- 제조자/수입자/유통업체 정보 정보
Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

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34141 E10 Korea Advanced Institute of Science
Guseong-Dong, Yuseong-gu, Daejeon,
Korea
Phone: 82 42 710 2091
Fax: 82 42 367 0005
Website: www.labsmro.com

- 추가적인 정보 및 문의는 ~~화학~~ **ChemTrec** safety department
- 비상연락 전화번호:
ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

2 유해성·위험성

- ~~순물질 또는 혼합물~~ **분류분류**



화염

인화성 액체 - 구분 3

H226 인화성 액체 및 증기



환경

수생환경 유해성 - 급성 1

H400 수생생물에 매우 유독함

수생환경 유해성 - 만성 1

H410 장기적인 영향에 의해 수생생물에게 매우 유독함

(2 쪽에 계속)

물질안전보건자료 GHS에 따라라따

기압점: 2019.05.17

개정: 2019.05.17

제품명: HISTO-CLEAR

(1 쪽부터계속)



피부 부식성/피부 자극성 - 구분 2 H315 피부에 자극을 일으킴
피부 과민성 - 구분 1 H317 알레르기성 피부 반응을 일으킬 수 있음

· 라벨 표기 요소요소

· 라벨 라벨 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS02 GHS07 GHS09

· 신호어 경고

· 상표상에명확히위험성이표시된성분:

d-리모넨

유해 유해 유해 유해 문구

인화성 액체 및 증기

피부에 자극을 일으킴

알레르기성 피부 반응을 일으킬 수 있음

장기적인 영향에 의해 수생생물에게 매우 유독함

· 예방 조치 문구문구

열·스파크·화염·고열로부터 멀리하십시오 - 금연

폭발 방지용 전기·환기·조명·장비를 사용하십시오.

(분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하십시오.

(보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으십시오. 피부를 물로 씻으십시오/샤워하십시오.

현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

기타기타 유해성

· PBT(잔류성, 생물농축성, 생물농축성) 및 vPvB(고 잔류성, 고 생물농축성) 물질로 평가된 결과

· PBT(잔류성, 생물농축성, 생물농축성) 당사항 없음.

· vPvB(고 잔류성, 고 생물농축성) 물질로 평가된 당사항 없음.

3 구성성분의 명칭 및 함유량

· 화학적 특성: 화학물질

· CAS-번호표시

5989-27-5 d-리모넨

식별식별 번호

· EC 의번호: 227-813-5

색인색인 번호: 601-029-00-7

4 응급조치 요령

· 응급조치요령 내용내용

· 일 반적 정보정보

중 독 증 상 은 몇 시 간 이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.

(3 쪽에계속)

물질안전보건자료 GHS에 따라라다

기압점: 2019.05.17

개정: 2019.05.17

제품명: HISTO-CLEAR

(2 쪽부터 계속)

- **흡입했을 때:**
신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.
환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
 - **피부에 접촉했을 때:** 즉시 물과 비누로 씻고 잘 행군다.
 - **눈에 눈에 들어갔을 때:** 흐르는 물에 눈을 몇 분 동안 씻어낸다.
 - **먹었을 때:** 즉시 의사의 도움을 구한다.
- 기타 기타 **각각의 주의사항:**
가장 가장 중요한 단점 및 발생 중독 증상 및 영향 영향적인 정보가 존재하지 않습니다.
· **즉각적인 의료 처치 및 특별 치료가 필요함을 시사하는 징후 중** 확적인 정보가 존재하지 않습니다.

5 폭발·화재시 대처방법

- **소화제**
 - **적절한 소화제:** 이산화탄소, 모래, 석회 가루를 사용하고, 물을 사용하지 않는다.
 - **부적절한 소화제:** 플레트용 물
 - **본 화학 물질이나 혼합물에서 발생하여 특별한 주의 사항** 추가적인 정보가 존재하지 않습니다.
 - **소방 관에 대한 신고 사항**
- 화재 화재 화재 발생 시 **화재 발생 시 대처 방법** 보호구 및 예방 조치: 특별한 조치가 필요 없음.

6 누출 사고 시 대처방법

- **개인적 예방 조치, 보호 장비 및 응급 처치 절차** 안전 장비 착용하고, 무방비의 사람은 격리 시킨다.
- 환경 **환경 관련 예방 조치:**
하천이나 하수로 유입되었을 경우 해당 관청에 보고한다.
하수도망/해수면 위 의물/지하수로 도달하지 않게 한다.
- 밀폐 **밀폐 및 정화 처리에 대한 조치:**
액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.
충분한 환기가 되도록 한다.
물이나 묽은 세척제로 씻어 내지 마십시오
- 석면 **석면 예방 조치:**
안전 관리에 대한 정보는 제 7 장을 참고하십시오.
개인 보호 장비에 대한 정보는 제 8 장을 참고하십시오.
쓰레기 처리에 대한 정보는 제 13 장을 참고하십시오.

7 취급 및 저장방법

- 취급 취급 취급
- 안전 **안전 예방을 위한 예방 조치**
작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.
연무질이 형성되는 것을 피한다.
- 화재 **화재 예방을 위한 예방 조치** **화재 예방을 위한 예방 조치**
발화 요소는 멀리 둔다. 금연.
열로부터 보호한다.
정전기의 충전으로부터 보호한다.
- **혼합 위험성 및 안전 예방 조치 조건**
- 보관 보관 보관
- **안전 예방을 위한 예방 조치** 특별한 요구 사항이 없음.
 - **하수 및 공기 중 방출을 방지하기 위한 예방 조치** 특별한 요구 없음
 - **보관 조건에 관한 추가적인 정보** 정보
- 용기를 새지 않게 밀폐한 채 보관한다.

(4 쪽에 계속)

물질안전보건자료 GHS에 따라라따

기압점: 2019.05.17

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제품명: HISTO-CLEAR

(3 쪽부터계속)

열이나직사광선으로부터보호한다.
· **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

8 노출방지 및 개인보호구

· **첨단시설 디자입에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시 오.

통제 ~~물질~~ ~~변수~~

· **화학물질의 노출기준, 생물학적 노출기준 등:** 생략
· **추가 정보** 정보조 할 당시에 유 효 한 목 록 을 기 초 로 사 용 했 다.

노출 ~~통제~~ 통제

개인 ~~보호~~ 보호구

· **일반적보호조치및위생조치:**

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전이나 작업이 끝날때마다 손을 씻는다.
- 피부와의 접촉을 피한다.
- 눈과 피부와의 접촉은 피한다.

· **호흡기 보호보호**

· 단 시간 또는 경미한 오염의 경우에는 호흡 여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.

보충 보호보호



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

· **장갑의재료**

· 적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업자에따라서도다르게선정되어야한다.

· **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

보충 보호보호



확조이는보안경

9 물리화학적 특성

기본 ~~정보~~ 물리화학적 특성에 대한 정보

· **일반정보**

외형외형외형

· **물리적상태상태**

· **색:**

냄새 ~~냄새~~ 냄새

· **후각역치**

액체

· 색소가 없는

· 과일종류의

· 알맞지 않다.

· **pH:**

· 알맞지 않다.

(5 쪽에계속)

물질안전보건자료 GHS에 따라라따

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(5 쪽부터계속)

11 독성에 관한 정보

· **독성학적 영향에 대한 정보**
급성독성독성독성

· LD/LC50-수체에 대한 분류

5989-27-5 d-리모넨

구강의 LD50 4,400 mg/kg (rat)

· **일차적 자극효과**
피부피부부작상 또는 자극성: 피부와점막을자극한다.
심한심한심한심한심한 자극성: 무자극.
· **감각화**: 피부접촉을통하여감각화가가능성이있다.

12 환경에 미치는 영향

독성독성독성

- **수생독성**: 추가적인 정보가 존재하지 않습니다.
- **지속성 및 분해성** 추가적인 정보가 존재하지 않습니다.
- **환경 시스템에서의 행동**:
- **생물농축 잠재성** 추가적인 정보가 존재하지 않습니다.
- **토양내 이동성** 추가적인 정보가 존재하지 않습니다.

· **생태독성**:
의견의견의견류 에 매우 독성임

· **추가적인 생태학 정보**
일반일반일반일반

수질오염등급 2 (목록분류): 수질오염이된
지하수나, 하천으로또는하수도망에도달하지않게한다.
지하수로경미한양이유입되었을경우엔이미식수오염상태이다
하천에서는역시물고기나플란크톤게는독성이있다.
물속의유기체에아주독이되는것

- PBT(잔류성, 생물농축성, 독성물질) 및 vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.
- PBT(잔류성, 생물농축성, 독성물질)에 해당하지 않음.
- vPvB(고 잔류성, 고 생물농축성 물질)에 해당하지 않음.

기타기타기타기타 추가적인 정보가 존재하지 않습니다.

13 폐기시 주의사항

· **폐기물 처리 방법**
권고 권고 권고 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

· **비위생적 포장포장**
권고 권고 권고 먹이지침에입각한쓰레기처리.

14 운송에 필요한 정보

유엔 유엔 유엔 번호

· ADR, IMDG, IATA

UN2319

(7 쪽에계속)

물질안전보건자료




GHS에 따라라따

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(6 쪽부터계속)

<ul style="list-style-type: none"> · 적정적정적정명 · ADR · IMDG · IATA 	2319 TERPENE HYDROCARBONS, N.O.S., ENVIRONMENTALLY HAZARDOUS TERPENE HYDROCARBONS, N.O.S., MARINE POLLUTANT TERPENE HYDROCARBONS, N.O.S.
<ul style="list-style-type: none"> · ADR, IMDG 	<div style="display: flex; justify-content: space-around;">   </div>
<ul style="list-style-type: none"> · ADR, IMDG 	3 발화성용액 3
<ul style="list-style-type: none"> · IATA 	<div style="display: flex; justify-content: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	3 발화성용액 3
<ul style="list-style-type: none"> · 용기등급 · ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> · 환경적 유해물질: · 해양오염물질: · 특수 위험물질(ADR): 	심벌 (물고기와 나무) 심벌 (물고기와 나무)
<ul style="list-style-type: none"> · 이동시 특별 취급조치 · 위험물질 코드 · UN번호 · Stowage Category 	경고: 발화성용액 30 F-E,S-D A
<ul style="list-style-type: none"> · MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 · 별크별크별운송운송 	해당사항 없음.
<ul style="list-style-type: none"> · ADR 	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> · Excepted quantities (EQ) 	3 D/E
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) 	5L

(8 쪽에계속)

물질안전보건자료

GHS에 따라라따

기압점: 2019.05.17

개정: 2019.05.17

제품명: HISTO-CLEAR

(7 쪽부터계속)

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· ~~UN번호~~ 유제

UN 2319 TERPENE HYDROCARBONS, N.O.S., 3, III,
ENVIRONMENTALLY HAZARDOUS

15 법적 규제현황

· 산업안전보건법에 의해규제

제조제조금지물질:

성분이포함되어있지않다

· 허가대상물질:

성분이포함되어있지않다

· 관리대상유해물질:

성분이포함되어있지않다

· 작업환경측정 대상유해인자

성분이포함되어있지않다

· 특수건강진단 대상유해인자

성분이포함되어있지않다

해당 해당 수량 또는 혼합 물에 대한 안전보건규제 관련 법률

· Korean Existing Chemical Inventory

KE-24397

· 화학물질관리법

· 사고대비물질

성분이포함되어있지않다

· 금지물질

성분이포함되어있지않다

· 제한물질

성분이포함되어있지않다

· 유독물질

성분이포함되어있다

· 허가물질

성분이포함되어있다

· 위험물안전관리법 (위험물 및 지정수량) True

· ~~위험물~~ 요소

본 화학물질은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS02 GHS07 GHS09

· 신호어 경고

(9 쪽에계속)

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· 상표상에명확히위험성이표시된성분:

- d-리모넨
- 유해 유해 유해 유해 유해 문구
- 인화성 액체 및 증기
- 피부에 자극을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 장기적인 영향에 의해 수생생물에게 매우 유독함

· 예방조치 문구 문구

- 열·스파크·화염·고열로부터 멀리하십시오 - 금연
- 폭발 방지용 전기·환기·조명·장비를 사용하십시오.
- (분진·흙·가스·미스트·증기·스프레이)의 흡입을 피하십시오.
- (보호장갑·보호의·보안경·안면보호구)를(을) 착용하십시오.
- 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으십시오. 피부를물로 씻으십시오/샤워하십시오.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· 화학물질 안전성 평가 평가 화학물질 안전성 평가가 수행되지 않음

16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은 기술하지않았으며계약적인법률관계에기반을두고있지도않다

최초 최초 작성일자: 2019.05.16
개정 개정 개정 개정 개정 최종 개정일자: 1 / 2019.05.17

· 약어와 두문자어:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative

Ficha de datos de seguridad

según 1907/2006/CE, Artículo 31

fecha de impresión 17.05.2019

Revisión: 17.05.2019

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

· 1.1 Identificador del producto

- **Nombre comercial:** *HISTO-CLEAR*
- **Número del artículo:** 64110-01, 64110-04, 64110-10
- **Número CAS:**
5989-27-5
- **Número CE:**
227-813-5
- **Número de clasificación:**
601-029-00-7

· 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen más datos relevantes disponibles.

- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· 1.3 Datos del proveedor de la ficha de datos de seguridad

· **Fabricante/distribuidor:**

Electron Microscopy Sciences
1560 Industry Road
USA-Hatfield, PA 19440
Tel: 215-412-8400 Fax: 215-412-8450
email: info@emsdiasum.com
www.emsdiasum.com

Aname

C/ Perez Galdos no. 2
28693 Quijorna
Madrid, Spain
Tel: +34.91.816.89.50
Fax: +34.91.816.85.94
email: ventas@aname.es

- **Área de información:** Product safety department

· 1.4 Teléfono de emergencia:

ChemTrec 1-800-424-9300 Contract CCN7661
1-703-527-3887

SECCIÓN 2: Identificación de los peligros

· 2.1 Clasificación de la sustancia o de la mezcla

- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS02 llama

Flam. Liq. 3 H226 Líquidos y vapores inflamables.



GHS09 medio ambiente

Aquatic Acute 1 H400 Muy tóxico para los organismos acuáticos.

Aquatic Chronic 1 H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

(se continua en página 2)

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Skin Irrit. 2 H315 Provoca irritación cutánea.
 Skin Sens. 1 H317 Puede provocar una reacción alérgica en la piel.

· 2.2 Elementos de la etiqueta

· Etiquetado con arreglo al Reglamento (CE) n° 1272/2008

La sustancia se ha clasificado y etiquetado de conformidad con el reglamento CLP.

· Pictogramas de peligro



GHS02 GHS07 GHS09

· Palabra de advertencia Atención

· Componentes peligrosos a indicar en el etiquetaje:

(R)-p-menta-1,8-dieno

· Indicaciones de peligro

H226 Líquidos y vapores inflamables.

H315 Provoca irritación cutánea.

H317 Puede provocar una reacción alérgica en la piel.

H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

· Consejos de prudencia

P210 Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.

P241 Utilizar un material eléctrico, de ventilación o de iluminación/antideflagrante.

P261 Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.

P280 Llevar guantes/prendas/gafas/máscara de protección.

P303+P361+P353 EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ ducharse.

P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

· 2.3 Otros peligros

· Resultados de la valoración PBT y mPmB

· PBT: No aplicable.

· mPmB: No aplicable.

SECCIÓN 3: Composición/información sobre los componentes

· 3.1 Caracterización química: Sustancias

· Denominación N° CAS

5989-27-5 (R)-p-menta-1,8-dieno

· Número(s) de identificación

· Número CE: 227-813-5

· Número de clasificación: 601-029-00-7

SECCIÓN 4: Primeros auxilios

· 4.1 Descripción de los primeros auxilios

· Instrucciones generales:

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

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- **En caso de inhalación del producto:**
 Suministrar suficiente aire fresco y, para mayor seguridad, consultar el médico.
 Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.
- **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.
- **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente.
- **En caso de ingestión:** Consultar inmediatamente un médico.
- **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.
- **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente**
 No existen más datos relevantes disponibles.

SECCIÓN 5: Medidas de lucha contra incendios

- **5.1 Medios de extinción**
- **Sustancias extintoras apropiadas:** CO₂, arena, polvo extintor. No utilizar agua.
- **Sustancias extintoras inapropiadas por razones de seguridad:** Agua a pleno chorro
- **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.
- **5.3 Recomendaciones para el personal de lucha contra incendios**
- **Equipo especial de protección:** No se requieren medidas especiales.

SECCIÓN 6: Medidas en caso de vertido accidental

- **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**
 Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.
- **6.2 Precauciones relativas al medio ambiente:**
 Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.
 Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.
- **6.3 Métodos y material de contención y de limpieza:**
 Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).
 Desechar el material contaminado como vertido según ítem 13.
 Asegurar suficiente ventilación.
 No enjuagar con agua ni productos de limpieza acuosos.
- **6.4 Referencia a otras secciones**
 Ver capítulo 7 para mayor información sobre una manipulación segura.
 Ver capítulo 8 para mayor información sobre el equipo personal de protección.
 Para mayor información sobre cómo desechar el producto, ver capítulo 13.

SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**
 Asegurar suficiente ventilación /aspiración en el puesto de trabajo.
 Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:**
 Mantener alejadas las fuentes de encendido. No fumar.
 Proteger del calor.
 Tomar medidas contra las cargas electrostáticas.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**
 Mantener el recipiente cerrado herméticamente.

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Proteger del calor y de la luz directa del sol.

· 7.3 Usos específicos finales No existen más datos relevantes disponibles.

SECCIÓN 8: Controles de exposición/protección individual

· **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**

Sin datos adicionales, ver punto 7.

· **8.1 Parámetros de control**· **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:****5989-27-5 (R)-p-menta-1,8-dieno**

LEP	Valor de larga duración: 168 mg/m ³ , 30 ppm
	Sen, vía dérmica

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.· **8.2 Controles de la exposición**· **Equipo de protección individual:**· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Evitar el contacto con la piel.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

· **Protección de manos:**

Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro.

· **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

· **Protección de ojos:**

Gafas de protección herméticas

ES

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SECCIÓN 9: Propiedades físicas y químicas

· 9.1 Información sobre propiedades físicas y químicas básicas

· Datos generales

· Aspecto:

Forma:

Líquido

Color:

Incoloro

· Olor:

Similar al de las frutas

· Umbral olfativo:

No determinado.

· valor pH:

No determinado.

· Cambio de estado

Punto de fusión/punto de congelación:

-74,3 °C

Punto inicial de ebullición e intervalo de ebullición:

173 °C

· Punto de inflamación:

43 °C

· Inflamabilidad (sólido, gas):

No aplicable.

· Temperatura de ignición:

255 °C

· Temperatura de descomposición:

No determinado.

· Temperatura de auto-inflamación:

No determinado.

· Propiedades explosivas:

El producto no es explosivo; sin embargo, pueden formarse mezclas explosivas de vapor / aire.

· Límites de explosión:

Inferior:

0,7 Vol %

Superior:

6,1 Vol %

· Presión de vapor a 20 °C:

2,3 hPa

· Densidad a 20 °C:

0,848 g/cm³

· Densidad relativa

No determinado.

· Densidad de vapor

No determinado.

· Tasa de evaporación:

No determinado.

· Solubilidad en / miscibilidad con agua:

Poco o no mezclable.

· Coeficiente de reparto: n-octanol/agua:

No determinado.

· Viscosidad:

Dinámica:

No determinado.

Cinemática:

No determinado.

· Concentración del disolvente:

Disolventes orgánicos:

100,0 %

VOC (CE)

100,00 %

· Contenido de cuerpos sólidos:

0,0 %

· 9.2 Otros datos

No existen más datos relevantes disponibles.

SECCIÓN 10: Estabilidad y reactividad

· 10.1 Reactividad No existen más datos relevantes disponibles.

· 10.2 Estabilidad química

· Descomposición térmica / condiciones que deben evitarse: No se descompone al emplearse adecuadamente.

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- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

· **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

5989-27-5 (R)-p-menta-1,8-dieno

Oral	LD50	4.400 mg/kg (rat)
------	------	-------------------

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Sensibilización respiratoria o cutánea**
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Efectos ecotóxicos:**
- **Observación:** Muy tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**
Nivel de riesgo para el agua 2 (clasificación de listas): peligroso para el agua
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.
Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.
muy tóxico para organismos acuáticos
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.

(se continua en página 7)

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· 12.6 Otros efectos adversos No existen más datos relevantes disponibles.

SECCIÓN 13: Consideraciones relativas a la eliminación

- 13.1 Métodos para el tratamiento de residuos
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

SECCIÓN 14: Información relativa al transporte

- | | |
|---|---|
| <ul style="list-style-type: none"> · 14.1 Número ONU · ADR, IMDG, IATA | UN2319 |
| <ul style="list-style-type: none"> · 14.2 Designación oficial de transporte de las Naciones Unidas · ADR · IMDG · IATA | 2319 HIDROCARBUROS TERPÉNICOS, N.E.P.,
PELIGROSO PARA EL MEDIO AMBIENTE
TERPENE HYDROCARBONS, N.O.S., MARINE
POLLUTANT
TERPENE HYDROCARBONS, N.O.S. |
| <ul style="list-style-type: none"> · 14.3 Clase(s) de peligro para el transporte · ADR, IMDG | <div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Clase · Etiqueta |
| <ul style="list-style-type: none"> · IATA | <div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> · Class · Label |
| <ul style="list-style-type: none"> · 14.4 Grupo de embalaje · ADR, IMDG, IATA | III |
| <ul style="list-style-type: none"> · 14.5 Peligros para el medio ambiente: · Contaminante marino: · Marcado especial (ADR): | Símbolo (pez y árbol)
Símbolo (pez y árbol) |
| <ul style="list-style-type: none"> · 14.6 Precauciones particulares para los usuarios · Número Kemler: · Número EMS: · Stowage Category | Atención: Líquidos inflamables
30
F-E,S-D
A |
| <ul style="list-style-type: none"> · 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC | No aplicable. |

(se continua en página 8)

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(se continua en página 7)

· Transporte/datos adicionales:

· ADR

- Cantidades limitadas (LQ) 5L
- Cantidades exceptuadas (EQ) Código: E1
Cantidad neta máxima por envase interior: 30 ml
Cantidad neta máxima por embalaje exterior: 1000 ml
- Categoría de transporte 3
- Código de restricción del túnel D/E

· IMDG

- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

- "Reglamentación Modelo" de la UNECE: UN 2319 HIDROCARBUROS TERPÉNICOS, N.E.P., 3, III, PELIGROSO PARA EL MEDIO AMBIENTE

SECCIÓN 15: Información reglamentaria

- 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla
- Directiva 2012/18/UE
- Sustancias peligrosas nominadas - ANEXO I No contiene la sustancia.
- Categoría Seveso
E1 Peligroso para el medio ambiente acuático
P5c LÍQUIDOS INFLAMABLES
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 100 t
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 200 t
- REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3
- 15.2 Evaluación de la seguridad química: Una evaluación de la seguridad química no se ha llevado a cabo.

SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· Abreviaturas y acrónimos:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 3: Líquidos inflamables – Categoría 3
 Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2
 Skin Sens. 1: Sensibilización cutánea – Categoría 1
 Aquatic Acute 1: Peligroso para el medio ambiente acuático - peligro acuático agudo – Categoría 1
 Aquatic Chronic 1: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 1