Printing date 01/27/2023 Reviewed on 01/27/2023

### 1 Identification

· Product identifier

· Trade name: ALCOHOLIC PICRIC ACID

· Article number: 26306-05

· 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

Flammable Liquids 2

H225 Highly flammable liquid and vapor.

Substances and mixtures which, in contact with water, emit flammable gases 1

H260 In contact with water releases flammable gases, which may ignite spontaneously.



GHS06 Skull and crossbones

Acute Toxicity - Oral 3

H301 Toxic if swallowed.



GHS08 Health hazard

Specific Target Organ Toxicity - Single Exposure 2

H371 May cause damage to the central nervous system and the visual organs.



Skin Irritation 2

H315 Causes skin irritation.

Eye Irritation 2A

H319 Causes serious eye irritation.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

(Contd. of page 1)

## Safety Data Sheet acc. to OSHA HCS

Printing date 01/27/2023 Reviewed on 01/27/2023

### Trade name: ALCOHOLIC PICRIC ACID

· Hazard pictograms









GHS02

GHS06

GHS07

· **Signal word** Danger

### · Hazard-determining components of labeling:

Methyl Alcohol

2,4,6-trinitrophenol

#### · Hazard statements

Highly flammable liquid and vapor.

In contact with water releases flammable gases, which may ignite spontaneously.

Toxic if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause damage to the central nervous system and the visual organs.

#### · Precautionary statements

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

Do not allow contact with water.

Handle under inert gas. Protect from moisture.

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.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

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

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

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

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Call a poison center/doctor.

Take off contaminated clothing and wash it before reuse.

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

Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use CO2, sand, extinguishing powder to extinguish.

Store in a dry place. Store in a closed container.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

(Contd. on page 3)

(Contd. of page 2)

## Safety Data Sheet acc. to OSHA HCS

Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

· Classification system:

NFPA ratings (scale 0 - 4)



The substance demonstrates unusual reactivity with water.

· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable. · **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
67-56-1	Methyl Alcohol	>50-≤100%
64-17-5	Ethyl alcohol	0-≤10%
88-89-1	2,4,6-trinitrophenol	0-≤10%

## 4 First-aid measures

- · Description of first aid measures
- · General information:

*Immediately remove any clothing soiled by the product.* 

In case of irregular breathing or respiratory arrest provide artificial respiration.

· 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. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- 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.

(Contd. on page 4)

Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

(Contd. of page 3)

- · 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: 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

· <i>PAC-1</i> :		
67-56-1	Methyl Alcohol	530 ppm
64-17-5	Ethyl alcohol	1,800 ppm
88-89-1	2,4,6-trinitrophenol	$0.3 \text{ mg/m}^3$
· <i>PAC-2</i> :		
67-56-1	Methyl Alcohol	2,100 ppm
64-17-5	Ethyl alcohol	3300* ppm
88-89-1	2,4,6-trinitrophenol	17 mg/m³
· <i>PAC-3</i> :		
67-56-1	Methyl Alcohol	7200* ppm
64-17-5	Ethyl alcohol	15000* ppm
88-89-1	2,4,6-trinitrophenol	100 mg/m³

### 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: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

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Trade name: ALCOHOLIC PICRIC ACID

(Contd. of page 4)

Store in cool, dry conditions in well sealed receptacles.

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:

### 67-56-1 Methyl Alcohol

PEL Long-term value: 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm

Long-term value: 260 mg/m³, 200 ppm

Skin

TLV Short-term value: 250 ppm

Long-term value: 200 ppm

Skin; BEI

#### 64-17-5 Ethyl alcohol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1000 ppm

A3

### 88-89-1 2,4,6-trinitrophenol

PEL Long-term value: 0.1 mg/m³

Skin

REL Short-term value: 0.3 mg/m<sup>3</sup>

Long-term value: 0.1 mg/m³

Skin

TLV Long-term value: 0.1 mg/m<sup>3</sup>

### Ingredients with biological limit values:

### 67-56-1 Methyl Alcohol

BEI 15 mg/L

Medium: urine

Time: end of shift

Parameter: Methanol (background, nonspecific)

- · 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 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.

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## Safety Data Sheet acc. to OSHA HCS

Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

### · 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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

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· Information on basic physical and	chemical properties
· General Information	
· Appearance:	
Form:	Liquid
Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value at 20 °C (68 °F):	1-3
· Change in condition Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	16.6 °C (61.9 °F)
Flammability (solid, gaseous):	Highly flammable.
, , , ,	Contact with water liberates extremely flammable gases.
· Ignition temperature:	368.8 °C (695.8 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Spontaneously flammable in air.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	Not determined.
Upper:	3.3 Vol %

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Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

		(Contd. of page
Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)	
Density at 20 °C (68 °F):	0.94375 g/cm³ (7.87559 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/wate	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	76-<95 %	
VOC content:	76-<95 <i>%</i>	
	896.6 g/l / 7.48 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 Contact with water releases flammable gases.
- · 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:			
67-56-1	67-56-1 Methyl Alcohol		
Oral	LD50	5,628 mg/kg (rat)	
Dermal	LD50	15,800 mg/kg (rabbit)	

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Irritant

(Contd. on page 8)

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Trade name: ALCOHOLIC PICRIC ACID

(Contd. of page 7)

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

64-17-5 Ethyl alcohol

1

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety Health Administration)

None of the ingredients is 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.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · 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.

4 Transport information		
· UN-Number · DOT, ADR, IMDG, IATA	UN1992	
· UN proper shipping name		
$\cdot DOT$	Flammable liquids, toxic, n.o.s.	
· ADR	1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANO. (ETHYL ALCOHOL), METHANOL)	
· IMDG	FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL (ETHY) ALCOHOL), METHANOL)	

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Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

		(Contd. of page
· IATA	FLAMMABLE LIQUID, TOXIC, N. C METHANOL)	O.S. (ETHANOL
Transport hazard class(es)		
· DOT		
RAMMER LUCKO  TOXIC  6		
· Class · Label	3 Flammable liquids 3, 6.1	
· ADR		
· Class	3 Flammable liquids	
· Label · IMDG	3+6.1	
· Class	3 Flammable liquids	
· Label	3/6.1	
· Class	3 Flammable liquids	
· Label	3 (6.1)	
· Packing group · DOT, ADR, IMDG, IATA	I	
· Environmental hazards:	Not applicable.	
· Special precautions for user · Hazard identification number (Kemler code) · EMS Number: · Stowage Category · Stowage Code	Warning: Flammable liquids : 339 F-E,S-D E SW2 Clear of living quarters.	
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: Forbidden On cargo aircraft only: 30 L	
	~ · ·	(Contd. on page

Printing date 01/27/2023 Reviewed on 01/27/2023

Trade name: ALCOHOLIC PICRIC ACID

(Contd. of page 9
Code: E0
Not permitted as Excepted Quantity
0
Code: E0
Not permitted as Excepted Quantity
UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANO. (ETHYL ALCOHOL), METHANOL), 3 (6.1), I

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara

None of the ingredients is listed.

### Section 313 (Specific toxic chemical listings):

67-56-1 Methyl Alcohol

88-89-1 2,4,6-trinitrophenol

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

All components have the value ACTIVE.

#### · Hazardous Air Pollutants

67-56-1 Methyl Alcohol

· Proposition 65

#### · Chemicals known to cause cancer:

None of the ingredients is listed.

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

None of the ingredients is listed.

### Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

### Chemicals known to cause developmental toxicity:

67-56-1 Methyl Alcohol

64-17-5 Ethyl alcohol

### · Carcinogenic categories

### · EPA (Environmental Protection Agency)

None of the ingredients is listed.

### · TLV (Threshold Limit Value)

64-17-5 Ethyl alcohol

A3

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

None of the ingredients is listed.

• GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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(Contd. of page 10)

## Safety Data Sheet acc. to OSHA HCS

Printing date 01/27/2023 Reviewed on 01/27/2023

#### Trade name: ALCOHOLIC PICRIC ACID

· Hazard pictograms









GHS02

GHS06

GHS07

011202 0112

· **Signal word** Danger

### · Hazard-determining components of labeling:

Methyl Alcohol

2,4,6-trinitrophenol

#### · Hazard statements

Highly flammable liquid and vapor.

In contact with water releases flammable gases, which may ignite spontaneously.

Toxic if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause damage to the central nervous system and the visual organs.

#### · Precautionary statements

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

Do not allow contact with water.

Handle under inert gas. Protect from moisture.

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.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

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

If swallowed: Immediately call a poison center/doctor.

Specific treatment (see on this label).

Rinse mouth.

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

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Call a poison center/doctor.

Take off contaminated clothing and wash it before reuse.

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

Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

If eye irritation persists: Get medical advice/attention.

Wash contaminated clothing before reuse.

In case of fire: Use CO2, sand, extinguishing powder to extinguish.

Store in a dry place. Store in a closed container.

Store in a well-ventilated place. Keep cool.

Store locked up.

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

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

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Trade name: ALCOHOLIC PICRIC ACID

(Contd. of page 11)

### 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.

- · Contact
- · Date of preparation / last revision 01/27/2023
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids - Category 2

Substances and mixtures which, in contact with water, emit flammable gases 1: Substances and mixtures which in contact with water emit flammable gases - Category 1

Acute Toxicity - Oral 3: Acute toxicity - Category 3

Skin Irritation 2: Skin corrosion/irritation - Category 2

Eye Irritation 2A: Serious eye damage/eye irritation - Category 2A

Sensitization - Skin 1: Skin sensitisation - Category 1

Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) - Category 2

-US