1 Identification

- Product identifier
  - Trade name: ACID ALCOHOL, 1%
  - Article number: 26102-03, 26312-04
  - 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: sgkeck@aol.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
    Substances and mixtures which, in contact with water, emit flammable gases 1
    H225 Highly flammable liquid and vapor.
    H260 In contact with water releases flammable gases, which may ignite spontaneously.

  - GHS08 Health hazard
    Carcinogenicity 1A
    Specific Target Organ Toxicity - Single Exposure 2
    H350 May cause cancer.
    H371 May cause damage to the central nervous system and the visual organs.

  - GHS05 Corrosion
    Skin Corrosion 1B
    Eye Damage 1
    H314 Causes severe skin burns and eye damage.
    H318 Causes serious eye damage.

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

- Signal word Danger

(Contd. on page 2)
Trade name: ACID ALCOHOL, 1%

· Hazard-determining components of labeling:
  Ethyl alcohol
  hydrogen chloride
  propan-2-ol
  Methyl Alcohol

· Hazard statements
  Highly flammable liquid and vapor.
  In contact with water releases flammable gases, which may ignite spontaneously.
  Causes severe skin burns and eye damage.
  May cause cancer.
  May cause damage to the central nervous system and the visual organs.

· Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  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 dusts or mists.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Immediately call a poison center/doctor.
  IF exposed or concerned: Get medical advice/attention.
  Specific treatment (see on this label).
  Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.
  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.

· Classification system:
  · NFPA ratings (scale 0 - 4)

  Health = 3
  Fire = 3
  Reactivity = 2

  The substance demonstrates unusual reactivity with water.
Trade name: ACID ALCOHOL, 1%

- **HMIS-ratings (scale 0 - 4)**

  - HEALTH: Health = *3
  - FIRE: Fire = 3
  - REACTIVITY: Reactivity = 2

- **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:**
    - 64-17-5 Ethyl alcohol >50-% \leq 100%
    - 67-63-0 propan-2-ol >2.5-% \leq 10%
    - 67-56-1 Methyl Alcohol >2.5-% \leq 10%
    - 7647-01-0 hydrogen chloride \leq 2.5%

### 4 First-aid measures

- **Description of first aid measures**
  - **General information:**
    Immediately remove any clothing soiled by the product.
    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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    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. Then consult a doctor.
  - **After swallowing:** Drink copious amounts of water and provide fresh air. 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, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **For safety reasons unsuitable extinguishing agents:** Water
  - **Special hazards arising from the substance or mixture:** No further relevant information available.
  - **Advice for firefighters**
  - **Protective equipment:** Mouth respiratory protective device.
6 Accident release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.

- Environmental precautions:
  Dilute with plenty of water.
  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).
  Use neutralizing agent.
  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:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 Ethyl alcohol</td>
<td>1,800 ppm</td>
</tr>
<tr>
<td>67-63-0 Propan-2-ol</td>
<td>400 ppm</td>
</tr>
<tr>
<td>67-56-1 Methyl Alcohol</td>
<td>530 ppm</td>
</tr>
<tr>
<td>7647-01-0 Hydrogen chloride</td>
<td>1.8 ppm</td>
</tr>
</tbody>
</table>

  PAC-2:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 Ethyl alcohol</td>
<td>3300* ppm</td>
</tr>
<tr>
<td>67-63-0 Propan-2-ol</td>
<td>2000* ppm</td>
</tr>
<tr>
<td>67-56-1 Methyl Alcohol</td>
<td>2,100 ppm</td>
</tr>
<tr>
<td>7647-01-0 Hydrogen chloride</td>
<td>22 ppm</td>
</tr>
</tbody>
</table>

  PAC-3:
<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 Ethyl alcohol</td>
<td>15000* ppm</td>
</tr>
<tr>
<td>67-63-0 Propan-2-ol</td>
<td>12000** ppm</td>
</tr>
<tr>
<td>67-56-1 Methyl Alcohol</td>
<td>7200* ppm</td>
</tr>
<tr>
<td>7647-01-0 Hydrogen chloride</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

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.
- 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:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>PEL Long-term value:</th>
<th>REL Long-term value:</th>
<th>TLV Short-term value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>1900 mg/m³, 1000 ppm</td>
<td>1900 mg/m³, 1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>980 mg/m³, 400 ppm</td>
<td>1225 mg/m³, 500 ppm</td>
<td>400 ppm</td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>260 mg/m³, 200 ppm</td>
<td>325 mg/m³, 250 ppm</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>7 mg/m³, 5 ppm</td>
<td>7 mg/m³, 5 ppm</td>
<td>2 ppm</td>
</tr>
</tbody>
</table>

Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>BEI Limit value:</th>
<th>Medium:</th>
<th>Time:</th>
<th>Parameter:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>40 mg/L</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>Acetone (background, nonspecific)</td>
</tr>
<tr>
<td>Methyl Alcohol</td>
<td>15 mg/L</td>
<td>urine</td>
<td>end of shift</td>
<td>Methanol (background, nonspecific)</td>
</tr>
</tbody>
</table>
55.0.4

· 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.
  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. 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]

Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

<table>
<thead>
<tr>
<th>Form:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor:</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

· pH-value at 20 °C (68 °F):

   | 1.19-1.39 |

· Change in condition

   | Melting point/Melting range: | Undetermined. |
   | Boiling point/Boiling range: | 78 °C (172.4 °F) |

· Flash point:

   | 13 °C (55.4 °F) |
### Safety Data Sheet

**Trade name:** ACID ALCOHOL, 1%

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Highly flammable. Contact with water liberates extremely flammable gases.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
<td>425 °C (797 °F)</td>
</tr>
<tr>
<td><strong>Decomposition temperature:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Auto igniting:</strong></td>
<td>Spontaneously flammable in air.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>3.5 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>15 Vol %</td>
</tr>
<tr>
<td><strong>Vapor pressure at 20 °C (68 °F):</strong></td>
<td>59 hPa (44.3 mm Hg)</td>
</tr>
<tr>
<td><strong>Density at 20 °C (68 °F):</strong></td>
<td>0.85562 g/cm³ (7.14015 lbs/gal)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Fully miscible.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Solvent content:</strong></td>
<td></td>
</tr>
<tr>
<td>Organic solvents</td>
<td>68.0 %</td>
</tr>
<tr>
<td>Water</td>
<td>31.0 %</td>
</tr>
<tr>
<td>VOC content</td>
<td>68.00 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>0.0 %</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>67-56-1 Methyl Alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: Strong caustic effect on skin and mucous membranes.
  - on the eye:
    Strong caustic effect.
    Strong irritant with the danger of severe eye injury.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product shows the following dangers according to internally approved calculation methods for preparations:
  Harmful
  Corrosive
  Irritant
  Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    | Code | Chemical |
    |------|----------|
    | 1    | Ethyl alcohol |
    | 3    | propan-2-ol |
    | 3    | hydrogen chloride |
  - 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.
    Must not reach bodies of water or drainage ditch undiluted or unneutralized.
    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.
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.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA UN1987

- UN proper shipping name
  - DOT Alcohols, n.o.s. (Ethanol, Isopropanol)
  - ADR 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
  - IMDG ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
  - IATA ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))

- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3
  - ADR, IMDG, IATA
    - Class 3 Flammable liquids
    - Label 3

  - Packing group
    - DOT, ADR, IMDG, IATA II

  - Environmental hazards:
    - Not applicable.

  - Special precautions for user
    - Warning: Flammable liquids

  - Hazard identification number (Kemler code): 33
  - EMS Number: F-E,S-D
Trade name: ACID ALCOHOL, 1%

· Stowage Category
  B

· 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: 5 L
      On cargo aircraft only: 60 L

· ADR
  · Excepted quantities (EQ)
    Code: E2
    Maximum net quantity per inner packaging: 30 ml
    Maximum net quantity per outer packaging: 500 ml

· IMDG
  · Limited quantities (LQ)
    1L
  · Excepted quantities (EQ)
    Code: E2
    Maximum net quantity per inner packaging: 30 ml
    Maximum net quantity per outer packaging: 500 ml

· UN "Model Regulation":
  UN 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, II

15 Regulatory information

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

· Sara
  · Section 355 (extremely hazardous substances):
    7647-01-0 hydrogen chloride

· Section 313 (Specific toxic chemical listings):
  67-63-0 propan-2-ol
  67-56-1 Methyl Alcohol
  7647-01-0 hydrogen chloride

· TSCA (Toxic Substances Control Act):
  All components have the value ACTIVE.

· Hazardous Air Pollutants
  67-56-1 Methyl Alcohol
  7647-01-0 hydrogen chloride

· 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:
    64-17-5 Ethyl alcohol
Trade name: ACID ALCOHOL, 1%

67-56-1 Methanol

- Carcinogenic categories
- EPA (Environmental Protection Agency)
  None of the ingredients is listed.
- TLV (Threshold Limit Value)
  64-17-5 Ethanol A3
  67-63-0 propan-2-ol A4
  7647-01-0 hydrogen chloride A4
- 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).
- Hazard pictograms
  GHS02  GHS05  GHS08

- Signal word
  Danger

- Hazard-determining components of labeling:
  Ethanol
  Hydrogen chloride
  Propan-2-ol
  Methanol

- Hazard statements
  Highly flammable liquid and vapor.
  In contact with water releases flammable gases, which may ignite spontaneously.
  Causes severe skin burns and eye damage.
  May cause cancer.
  May cause damage to the central nervous system and the visual organs.

- Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  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 dusts or mists.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Rinse mouth. Do NOT induce vomiting.
  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Trade name: ACID ALCOHOL, 1%

Immediately call a poison center/doctor.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
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.

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 10/20/2022 / -
- 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
  Skin Corrosion 1B: Skin corrosion/irritation – Category 1B
  Eye Damage 1: Serious eye damage/eye irritation – Category 1
  Carcinogenicity 1A: Carcinogenicity – Category 1A
  Specific Target Organ Toxicity - Single Exposure 2: Specific target organ toxicity (single exposure) – Category 2