1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers
Product name: Hexane, mixture of isomers
Product Number: 178918
Brand: Sigma-Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet
Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052

1.4 Emergency telephone number
Emergency Phone #: (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 2), H225
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Reproductive toxicity (Category 2), H361
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Specific target organ toxicity - repeated exposure, Oral (Category 2), H373
Specific target organ toxicity - repeated exposure, Inhalation (Category 2), H373
Aspiration hazard (Category 1), H304
Acute aquatic toxicity (Category 2), H401
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements
Pictogram

Signal word: Danger
Hazard statement(s)
H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure if swallowed.

May cause damage to organs through prolonged or repeated exposure if inhaled.

Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P391 Collect spillage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms: Hexanes
Isohexane

Formula: \( \text{C}_{6}\text{H}_{14} \)

Molecular weight: 86.18 g/mol

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>110-54-3</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>203-777-6</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>601-037-00-0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 2; Asp. Tox. 1; Aquatic Acute 2; Aquatic Chronic 2; H225, H304, H315, H336, H361,</td>
<td>&gt;= 50 - &lt; 70 %</td>
</tr>
</tbody>
</table>
Hexanes, isomers

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Flam. Liq.; Skin Irrit.; Repr.; STOT SE; Aquatic Acute; Aquatic Chronic</th>
<th>&gt;= 20 - &lt; 30 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>92112-69-1</td>
<td>Flam. Liq.; Skin Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</td>
<td>225, 304, 315, 336, 361, H373, H411</td>
</tr>
</tbody>
</table>

Methylcyclopentane

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Flam. Liq.; Acute Tox.; Skin Irrit.; Eye Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</th>
<th>&gt;= 10 - &lt; 20 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>96-37-7</td>
<td>Flam. Liq.; Skin Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</td>
<td>225, 302, 304, 315, H319, H335</td>
</tr>
</tbody>
</table>

2-Methylpentane

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Flam. Liq.; Skin Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</th>
<th>&gt;= 1 - &lt; 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-83-5</td>
<td>Flam. Liq.; Skin Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</td>
<td>225, 304, 315, H336, H411</td>
</tr>
</tbody>
</table>

3-Methylpentane

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Flam. Liq.; Skin Irrit.; Eye Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</th>
<th>&gt;= 1 - &lt; 5 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>96-14-0</td>
<td>Flam. Liq.; Skin Irrit.; Eye Irrit.; STOT SE; Asp. Tox.; Aquatic Acute; Aquatic Chronic</td>
<td>225, 304, 315, H319, H336, H411</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Moisture sensitive.
Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>TWA</td>
<td>50.000000 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
</tbody>
</table>

Remarks
- Central Nervous System impairment
- Eye irritation
- Peripheral neuropathy
- Substances for which there is a Biological Exposure Index or Indices (see BEI® section)
- Danger of cutaneous absorption
<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>USA. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td>50 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
<tr>
<td></td>
<td>500 ppm</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
</tbody>
</table>

The value in mg/m³ is approximate.

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>USA. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 ppm</td>
<td>USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PEL</th>
<th>California permissible exposure limits for chemical contaminants (Title 8, Article 107)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 ppm</td>
<td>180 ppm</td>
</tr>
<tr>
<td></td>
<td>5 ppm</td>
<td>Substances for which there is a Biological Exposure Index or Indices (see BEI® section)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Danger of cutaneous absorption</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
<th>USA. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td>100 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

Also see specific listing for n-Hexane.

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>USA. NIOSH Recommended Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>510 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

Also see specific listing for n-Hexane.

15 minute ceiling value
### Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Parameters</th>
<th>Value</th>
<th>Biological specimen</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2,5-Hexanedione</td>
<td>0.4 mg/l</td>
<td>Urine</td>
<td>ACGIH - Biological Exposure Indices (BEI)</td>
</tr>
</tbody>
</table>

### Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

**Eye/face protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 480 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.4 mm
Break through time: 480 min
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance</td>
<td>Form: liquid</td>
</tr>
<tr>
<td>b) Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>c) Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>Melting point/range: -95 °C (-139 °F)</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>68 - 70 °C (154 - 158 °F) at 1,013 hPa (760 mmHg)</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>-23 °C (-9 °F)</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>j) Upper/lower flammability or explosive limits</td>
<td>Upper explosion limit: 7.5 %(V)</td>
</tr>
<tr>
<td></td>
<td>Lower explosion limit: 1.1 %(V)</td>
</tr>
<tr>
<td>k) Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>l) Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>0.672 g/cm3</td>
</tr>
<tr>
<td>n) Water solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>o) Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
</tbody>
</table>
p) Auto-ignition temperature 225 °C (437 °F)
q) Decomposition temperature No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available

9.2 Other safety information
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Vapours may form explosive mixture with air.

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Oxidizing agents, Strong oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
Inhalation: No data available
Dermal: No data available
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a
carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
No data available
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available
Prolonged or repeated contact with skin may cause: defatting, Dermatitis, Contact with eyes can cause: Redness, Blurred vision, Provokes tears., Effects due to ingestion may include: Gastrointestinal discomfort, Central nervous system depression, Lung irritation, chest pain, pulmonary edema
Testes. - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence (Hexanes, isomers)

12. ECOLOGICAL INFORMATION
12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1208 Class: 3 Packing group: II
Proper shipping name: Hexanes
Reportable Quantity (RQ):

Poison Inhalation Hazard: No

IMDG
15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2007-07-01</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>96-37-7</td>
<td>1993-04-24</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>107-83-5</td>
<td>1993-04-24</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>96-14-0</td>
<td>1993-04-24</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Hexanes, isomers</td>
<td>92112-69-1</td>
<td>2007-07-01</td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>96-37-7</td>
<td>1993-04-24</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>107-83-5</td>
<td>1993-04-24</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>96-14-0</td>
<td>1993-04-24</td>
</tr>
</tbody>
</table>

New Jersey Right To Know Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>2007-07-01</td>
</tr>
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<td>Hexanes, isomers</td>
<td>92112-69-1</td>
<td>2007-07-01</td>
</tr>
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<td>Methylcyclopentane</td>
<td>96-37-7</td>
<td>1993-04-24</td>
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<tr>
<td>2-Methylpentane</td>
<td>107-83-5</td>
<td>1993-04-24</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>96-14-0</td>
<td>1993-04-24</td>
</tr>
</tbody>
</table>

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

- Acute Tox.
- Aquatic Acute
- Aquatic Chronic
- Asp. Tox.
- Eye Irrit.
- Flam. Liq.
- H225
- H302
- H304
- H315
- H319
- H335

Acute toxicity
Acute aquatic toxicity
Chronic aquatic toxicity
Aspiration hazard
Eye irritation
Flammable liquids
Highly flammable liquid and vapour.
Harmful if swallowed.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure if swallowed.
Toxic to aquatic life.
Toxic to aquatic life with long lasting effects.
Reproductive toxicity
Skin irritation
Specific target organ toxicity - repeated exposure
Specific target organ toxicity - single exposure

**HMIS Rating**
- Health hazard: 2
- Chronic Health Hazard: *
- Flammability: 3
- Physical Hazard: 0

**NFPA Rating**
- Health hazard: 2
- Fire Hazard: 3
- Reactivity Hazard: 0

**Further information**
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**Preparation Information**
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 5.8 Revision Date: 06/02/2016 Print Date: 07/21/2016