SECTION 2) HAZARDS IDENTIFICATION

Classification:
- Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3
- Aspiration Hazard - Category 1
- Skin Irritation - Category 2
- Eye Irritation - Category 2A
- Aerosol - Category 1
- Chronic aquatic toxicity - Category 1
- Acute aquatic toxicity - Category 1
- Acute toxicity, Oral - Category 4

Pictograms:

Signal Word:
Danger

Hazardous Statements - Physical:
- H222, H229 - Extremely flammable aerosol, Pressurized container may burst if heated

Hazardous Statements - Health:
- H336 - May cause drowsiness or dizziness
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H302 - Harmful if swallowed

Hazardous Statements - Environmental:
- H410 - Very toxic to aquatic life with long lasting effects
Precautionary Statements - General:
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.

Precautionary Statements - Prevention:
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 - Use only outdoors or in a well-ventilated area.
P264 - Wash thoroughly after handling.
P280 - Wear eye protection/face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P270 - Do not eat, drink or smoke when using this product.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.

Precautionary Statements - Response:
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 - Do NOT induce vomiting.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/attention.

Precautionary Statements - Storage:
P410 - Protect from sunlight.
P412 - Do not expose to temperatures exceeding 50°C/122°F.
P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal:
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
<th>% By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000142-82-5</td>
<td>N-HEPTANE</td>
<td>66% - 86%</td>
</tr>
<tr>
<td>0000067-63-0</td>
<td>ISOPROPYL ALCOHOL</td>
<td>2% - 7%</td>
</tr>
<tr>
<td>0000124-38-9</td>
<td>CO2</td>
<td>2% - 7%</td>
</tr>
<tr>
<td>0000067-56-1</td>
<td>METHANOL</td>
<td>1.0% - 5%</td>
</tr>
</tbody>
</table>

SECTION 4) FIRST-AID MEASURES

Inhalation:
Remove source of exposure or move person to fresh air and keep comfortable for breathing.
If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.
Eliminate all ignition sources if safe to do so.

Eye Contact:
Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

**Skin Contact:**
Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. Call a POISON CENTER/doctor if you feel unwell. Store contaminated clothing under water and wash before reuse or discard.

**Ingestion:**
Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.
Never give anything by mouth to an unconscious or convulsing victim. Keep person warm and quiet.

---

### SECTION 5) FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:**
Use water, fog, dry chemical, or carbon dioxide.
Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

**Unsuitable Extinguishing Media:**
Water may be ineffective but can be used to cool containers exposed to heat or flame.

**Specific Hazards in Case of Fire:**
Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force.
Aerosol cans may rupture when heated.
Heated cans may burst.
In fire, will decompose to carbon dioxide, carbon monoxide

**Fire-Fighting Procedures:**
Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Special Protective Actions:**
Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Care should always be exercised in dust/mist areas.

---

### SECTION 6) ACCIDENTAL RELEASE MEASURES

**Emergency Procedure:**
Flammable/combustible material. ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stay upwind; keep out of low areas.
Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Use absorbent sweeping compound to soak up material and put into suitable container for proper disposal.

**Recommended Equipment:**
Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**
ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Use explosion proof equipment. Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**Environmental Precautions:**
Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

---

### SECTION 7) HANDLING AND STORAGE

**General:**
For industrial and institutional use only.
For use by trained personnel only.
Keep away from children.
Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe vapors or mists.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.
Remove contaminated clothing and protective equipment before entering eating areas.
Eyewash stations and showers should be available in areas where this material is used and stored.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use.

Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them. Ground all structures, transfer containers and equipment to conform to the national electrical code. Use procedures that prevent static electrical sparks. Static electricity may accumulate and create a fire hazard.

Store at temperatures below 120°F.

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### SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

**Eye Protection:**

Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

**Skin Protection:**

Wear gloves, long sleeved shirt, long pants and other protective clothing as required to minimize skin contact.

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.

Chemical-resistant clothing is recommended to avoid prolonged contact. Avoid unnecessary skin contact.

**Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapors.

When spraying more than one half can continuously or more than one can consecutively, use NIOSH approved respirator.

#### Exposure Limits

<table>
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<tr>
<th>Chemical Name</th>
<th>OSHA TWA (ppm)</th>
<th>OSHA TWA (mg/m³)</th>
<th>OSHA STEL (ppm)</th>
<th>OSHA STEL (mg/m³)</th>
<th>OSHA Tables (Z1, Z2, Z3)</th>
<th>OSHA Carcinogen</th>
<th>OSHA Skin designation</th>
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#### TWA and STEL

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### SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

**Physical and Chemical Properties**

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<th>Property</th>
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<td>Density VOC</td>
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<tr>
<td>VOC Regulatory</td>
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<tr>
<td>VOC Regulatory</td>
<td>668.99638 g/l</td>
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<tr>
<td>Appearance</td>
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<tr>
<td>Evaporation Rate</td>
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</tr>
</tbody>
</table>

### SECTION 10) STABILITY AND REACTIVITY

**Stability:**
- Stable.

**Conditions to Avoid:**
- High temperatures.

**Incompatible Materials:**
- None known.

**Hazardous Reactions/Polymerization:**
- Will not occur.

**Hazardous Decomposition Products:**
- In fire, will decompose to carbon dioxide, carbon monoxide.

### SECTION 11) TOXICOLOGICAL INFORMATION

**Skin Corrosion/Irritation:**
- Overexposure will cause defatting of skin.
- Causes skin irritation

**Serious Eye Damage/Irritation:**
- Overexposure will cause redness and burning sensation.
**Carcinogenicity:**
No data available

**Germ Cell Mutagenicity:**
No data available

**Reproductive Toxicity:**
No data available

**Respiratory/Skin Sensitization:**
No data available

**Specific Target Organ Toxicity - Single Exposure:**
May cause drowsiness or dizziness

**Specific Target Organ Toxicity - Repeated Exposure:**
No data available

**Aspiration Hazard:**
May be fatal if swallowed and enters airways

**Acute Toxicity:**
Inhalation: effect of overexposure include irritation of respiratory tract, headache, dizziness, nausea, and loss of coordination. Extreme overexposure may result in unconsciousness and possibly death.

---

**ISOPROPYL ALCOHOL**

| LC50 (rat): 17000 ppm (4-hour exposure); cited as 12000 ppm (8-hour exposure) (18) |
| LD50 (oral, male rat): 4710 mg/kg (cited as 6.0 mL/kg) (19) |
| LD50 (oral, mouse): 3600 mg/kg [20, unconfirmed] |
| LD50 (dermal, rabbit): 12870 mg/kg (cited as 16.4 mL/kg) (14) |

---

**METHANOL**

| LC50 (rat): 64000 ppm (4-hour exposure) (14, unconfirmed) |
| LD50 (oral, rat): 5628 mg/kg (14, unconfirmed) |
| LD50 (oral, 14-day old rat): 5850 mg/kg (cited as 7.4 mL/kg) (15) |
| LD50 (oral, young adult rat): 10280 mg/kg (cited as 13.0 mL/kg) (15) |
| LD50 (oral, monkey): 3000 mg/kg (1/1 animal died) (16) LD50 (dermal, rabbit): 15800 mg/kg (cited as 20 mL/kg) (17 citing unpublished information) |

---

**N-HEPTANE**

| LC50 (rat): approximately 25000 ppm (4-hour exposure); cited as 103 g/m3 (4-hour exposure) (6) |
| LD50 (oral, rat): Greater than 15000 mg/kg (4) |

---

**Potential Health Effects - Miscellaneous**

**METHANOL**

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: eyes, kidneys, liver, skin. Excessive human exposure to methanol may lead to: fatigue, headache, anaesthetic, neurologic effects, and visual difficulties including blindness or death. Recurrent overexposure may result in liver and kidney injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother. Ingestion may cause any of the following: blindness. Eye contact may cause any of the following: conjunctivitis, mild irritation, corneal opacity.

**ISOPROPYL ALCOHOL**

The following medical conditions may be aggravated by exposure: dermatitis, respiratory disease. Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.

---

**N-HEPTANE**

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors. Aspiration may occur during swallowing or vomiting, resulting in lung damage.
Very toxic to aquatic life with long lasting effects

**Persistence and Degradability:**
No data available.

**Bio-Accumulative Potential:**
No data available.

**Mobility in Soil:**
No data available.

**Other Adverse Effects:**
No data available.

**Mobility in Soil**
0000067-56-1 METHANOL
Will not adsorb on soil.

**Persistence and Degradability**
0000067-56-1 METHANOL
72% aerobic biodegradability.

### SECTION 13) DISPOSAL CONSIDERATIONS

**Water Disposal:**
Under RCRA, it is the responsibility of the user of the product, to determine a the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.
Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

### SECTION 14) TRANSPORT INFORMATION

**U.S. DOT Information:**
Consumer Commodity, ORM-D

**IMDG Information:**
Consumer Commodity, ORM-D

**IATA Information:**
Consumer Commodity, ORM-D

### SECTION 15) REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Name</th>
<th>% By Weight</th>
<th>Regulation List</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000142-82-5</td>
<td>N-HEPTANE</td>
<td>66% - 86%</td>
<td>SARA312,VOC,TSCA,ACGIH,OSHA</td>
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</tr>
<tr>
<td>0000067-56-1</td>
<td>METHANOL</td>
<td>1.0% - 5%</td>
<td>CERCLA,HAPS,SARA312,SARA313,VOC,TSCA,RCRA,ACGIH,CA,Prop65 - California Proposition 65,OSHA</td>
</tr>
</tbody>
</table>

### SECTION 16) OTHER INFORMATION

**Glossary:**
* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.
HMIS  

3 2 0 B

NFPA  

3 2 0

Chronic :  

Version 1.0:  
First Edition.

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