Section 1. Identification

GHS product identifier : E-WELD NOZZLE
Product code : 53-F 212
SDS no. : L-156E
Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Lubricant.

Manufacturer : Walter Surface Technologies Inc.
5977 Trans Canada Highway
Pointe-Claire, QC H9R 1C1
Canada
info@walter.com
www.walter.com
General Information: 1-888-592-5837

Emergency telephone number (with hours of operation) : INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500
24 hours/day, 7 days/week.

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SIMPLE ASPHYXIANTS
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements
Hazard pictograms : 

Signal word : Danger
Hazard statements : H222 - Extremely flammable aerosol.
H280 - Contains gas under pressure; may explode if heated.
No Code(s) - May displace oxygen and cause rapid suffocation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements : 

Tel : +1-888-GHS-7769 (447-7769) / +1-450-GHS-7767 (447-7767)
Section 2. Hazards identification

Prevention:
P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapor.
P264 - Wash hands thoroughly after handling.
P251 - Pressurized container: Do not pierce or burn, even after use.

Response:
P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician 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.
P337 + P313 - If eye irritation persists: Get medical attention.

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

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

Supplemental label elements:
Keep container tightly closed. Use only with adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated.

Hazards not otherwise classified:
None known.

Section 3. Composition/information on ingredients

Substance/mixture:
Mixture

Product code:
53-F 212

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>10 - 30</td>
<td>64-17-5</td>
</tr>
<tr>
<td>Acetone</td>
<td>10 - 30</td>
<td>67-64-1</td>
</tr>
<tr>
<td>C.I. Solvent Orange 54</td>
<td>0.1 - 1</td>
<td>85029-59-0</td>
</tr>
</tbody>
</table>

This mixture contains Boron Nitride powder (CAS 10043-11-5) in the range between 10-30%. This ingredient is not classified under Hazcom 2012.

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.
Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact:
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 20 minutes. Get medical attention.
Section 4. First aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately.

Skin contact: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Over-exposure signs/symptoms:

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- nausea or vomiting
- headache
- dizziness/fatigue
- dizziness/vertigo
- unconsciousness

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact: No known significant effects or critical hazards.

Ingestion: Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- nausea or vomiting
- headache
- dizziness/fatigue
- dizziness/vertigo
- unconsciousness

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**: In case of fire, use foam, dry chemical or carbon dioxide.

** Unsuitable extinguishing media**: None known.

**Specific hazards arising from the chemical**: Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide

**Special protective actions for fire-fighters**: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

**Methods and materials for containment and cleaning up**
Section 6. Accidental release measures

Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Store in accordance with local regulations. Protect from sunlight. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>STEL: 1000 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 1000 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 1900 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 1000 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 1900 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 3/2017).</td>
</tr>
<tr>
<td></td>
<td>TWA: 250 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 250 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 590 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016).</td>
</tr>
<tr>
<td></td>
<td>TWA: 1000 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 2400 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Acetone</td>
<td>None.</td>
</tr>
<tr>
<td>C.I. Solvent Orange 54</td>
<td></td>
</tr>
</tbody>
</table>
Section 8. Exposure controls/personal protection

### Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| **Ethanol**     | CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 1000 ppm 8 hours.  
8 hrs OEL: 1880 mg/m³ 8 hours.  
CA British Columbia Provincial (Canada, 7/2016).  
STEL: 1000 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
STEL: 1000 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 1000 ppm 8 hours.  
TWA: 1880 mg/m³ 8 hours.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 1250 ppm 15 minutes.  
TWA: 1000 ppm 8 hours.  |
| **Acetone**     | CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 1200 mg/m³ 8 hours.  
15 min OEL: 1800 mg/m³ 15 minutes.  
8 hrs OEL: 500 ppm 8 hours.  
15 min OEL: 750 ppm 15 minutes.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 250 ppm 8 hours.  
STEL: 500 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 500 ppm 8 hours.  
STEL: 750 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 500 ppm 8 hours.  
TWA: 1190 mg/m³ 8 hours.  
STEV: 1000 ppm 15 minutes.  
STEV: 2380 mg/m³ 15 minutes.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 750 ppm 15 minutes.  
TWA: 500 ppm 8 hours.  |

### Appropriate engineering controls
- No personal respiratory protective equipment normally required. Avoid breathing dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### Environmental exposure controls
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

### Individual protection measures

#### Hygiene measures
- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

#### Eye/face protection
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: face shield

#### Skin protection
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Section 8. Exposure controls/personal protection

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Use a NIOSH/MSHA approved respirator if there is a risk of exposure at levels exceeding the exposure limits. Advice should be sought from respiratory protection specialists.

Section 9. Physical and chemical properties

**Appearance**

- **Physical state**: Liquid.
- **Color**: Orange.
- **Odor**: Characteristic.
- **Odor threshold**: Not applicable.
- **pH**: Not available.
- **Melting point**: Not available.
- **Boiling point**: -1°C (30.2°F) (Propellant)
- **Flash point**: Closed cup: -60°C (-76°F) (Propellant)
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not available.
- **Lower and upper explosive (flammable) limits**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: Not available.
- **Solubility**: Not available.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: 365°C (689°F) (Propellant)
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Flow time (ISO 2431)**: Not available.
- **VOC content**: 84% (w/w)

**Aerosol product**

- **Type of aerosol**: Spray
- **Heat of combustion**: 51.47 kJ/g
Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>124700 mg/m³</td>
<td>4 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7 g/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5800 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Acetone</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.066666667 minutes 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 µl</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 µl</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>20 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>395 mg</td>
<td>-</td>
</tr>
<tr>
<td>Acetone</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.066666667 minutes 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 µl</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**

There is no data available.

**Mutagenicity**

There is no data available.

**Carcinogenicity**

There is no data available.

**Reproductive toxicity**

There is no data available.

**Teratogenicity**

There is no data available.

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>Category 3</td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)
There is no data available.

Aspiration hazard
There is no data available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact
- Causes serious eye irritation.

Inhalation
- Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact
- No known significant effects or critical hazards.

Ingestion
- Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact
- Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

Inhalation
- Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness

Skin contact
- No known significant effects or critical hazards.

Ingestion
- No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects
- No known significant effects or critical hazards.

Potential delayed effects
- No known significant effects or critical hazards.

Long term exposure

Potential immediate effects
- No known significant effects or critical hazards.

Potential delayed effects
- No known significant effects or critical hazards.

Potential chronic health effects

General
- No known significant effects or critical hazards.

Carcinogenicity
- No known significant effects or critical hazards.

Mutagenicity
- No known significant effects or critical hazards.

Teratogenicity
- No known significant effects or critical hazards.

Developmental effects
- No known significant effects or critical hazards.

Fertility effects
- No known significant effects or critical hazards.

Numerical measures of toxicity
Section 11. Toxicological information

Acute toxicity estimates
There is no data available.

Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Acute EC50 1074 mg/L Fresh water</td>
<td>Crustaceans - Cypris subglobosa</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5680 mg/L Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1100000 µg/L Marine water</td>
<td>Fish - Alburnus alburnus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4.995 mg/L Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 µ/L Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.375 µ/L Fresh water</td>
<td>Fish - Gambausia holbrooki - Larvae</td>
<td>12 days</td>
</tr>
<tr>
<td>Acetone</td>
<td>Acute EC50 7220000 µg/L Fresh water</td>
<td>Algae - Selenastrum sp.</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 6000000 µg/L Fresh water</td>
<td>Crustaceans - Gammarus pulex</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 6900 mg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5600 ppm Fresh water</td>
<td>Fish - Poecilia reticulata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4.95 mg/L Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.016 ml/L Fresh water</td>
<td>Crustaceans - Daphniidae</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.1 ml/L Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>21 days</td>
</tr>
</tbody>
</table>

Persistence and degradability
There is no data available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>-0.35</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Acetone</td>
<td>-0.23</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Listed</td>
<td>U002</td>
</tr>
</tbody>
</table>
Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1950</td>
<td>UN1950</td>
<td>UN1950</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Aerosols, flammable (each not exceeding 1 L capacity)</td>
<td>Aerosols, flammable (each not exceeding 1 L capacity)</td>
<td>Aerosols, flammable (each not exceeding 1 L capacity)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

**DOT-RQ Details**

: Acetone
5000 lbs / 2270 kg [758.12 gal / 2869.8 L]

**Additional information**

: **Reportable quantity** 20833.3 lbs / 9458.3 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

: **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. Protect from freezing. Freezing will damage product and render it unusable.

Section 15. Regulatory information

**U.S. Federal regulations**

: **United States inventory (TSCA 8b)**: All components are listed or exempted.
  Clean Water Act (CWA) 307: C.I. Solvent Orange 54
  Clean Air Act (CAA) 112 regulated flammable substances: Butane; Propane

: **Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)**: Listed

: **Clean Air Act Section 602 Class I Substances**: Not listed

: **Clean Air Act Section 602 Class II Substances**: Not listed

: **DEA List I Chemicals (Precursor Chemicals)**: Not listed

: **DEA List II Chemicals (Essential Chemicals)**: Listed

**SARA 302/304**

: **Composition/information on ingredients**
No products were found.
Section 15. Regulatory information

SARA 304 RQ : Not applicable.
SARA 311/312 Classification : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SIMPLE ASPHYXIANTS
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td>Acetone</td>
<td>FLAMMABLE LIQUIDS - Category 2</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3</td>
</tr>
</tbody>
</table>

SARA 313
There is no data available.

State regulations

Massachusetts : The following components are listed: Butane; Propane; Ethanol; Acetone
New York : The following components are listed: Acetone
New Jersey : The following components are listed: Butane; Propane; Ethanol; Acetone; C.I. Solvent Orange 54
Pennsylvania : The following components are listed: Butane; Propane; Ethanol; Acetone; C.I. Solvent Orange 54

California Prop. 65
No products were found.

Canada
Canadian lists
Canadian NPRI : The following components are listed: Butane; Propane; Ethanol; Acetone; C.I. Solvent Orange 54
CEPA Toxic substances : The following components are listed: Acetone
Canada inventory (DSL NDSL) : All components are listed or exempted.

International lists
National inventory
Australia : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Turkey : All components are listed or exempted.
# Section 16. Other information

## Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE AEROSOLS - Category 1</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>GASES UNDER PRESSURE - Compressed gas</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>SIMPLE ASPHYXIANTS</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 3</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

## History

- **Date of issue mm/dd/yyyy**: 09/30/2018
- **Date of previous issue**: 11/30/2015
- **Version**: 2
- **Prepared by**: KMK Regulatory Services Inc.

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