



## SAFETY DATA SHEET

OPD 1518

### Section 1. Identification

**GHS product identifier** : OPD 1518

**Other means of identification** : Asphaltene Dispersant

**Product use** : Not available.

**Product type** : Liquid.

**Manufacturer** : Jacam Manufacturing 2013, L.L.C.  
P.O.Box 208, 1656 Ave. Q.  
Sterling, Kansas 67579

**Validation date** : 3/10/2017.

**For Chemical Emergency  
Spill, Leak Fire, Exposure or  
Accident:** : **Call CHEMTREC Day or Night**  
**Within USA and Canada 800-424-9300 CCN# 11754**  
**Or +1 703-527-3887 (Collect calls accepted)**

**Direct all other calls to:**  
**Jacam Chemicals 2013, L.L.C. 620-278-3355**  
**Mon – Fri 8 a.m. to 5 p.m. (Closed on major holidays)**





**Supplier's details** : Jacam Chemicals 2013, L.L.C.  
P.O. Box 96, 205 S. Broadway  
Sterling, Kansas 67579

### Section 2. Hazards identification

**Classification of the substance or mixture** : **FLAMMABLE LIQUIDS - Category 3**  
**ACUTE TOXICITY (inhalation) - Category 4**  
**SKIN CORROSION/IRRITATION - Category 1**  
**SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1**  
**CARCINOGENICITY - Category 1A**

#### GHS label elements

## Section 2. Hazards identification

<b>Hazard pictograms</b>	:    
<b>Signal word</b>	: Danger
<b>Hazard statements</b>	: <ul style="list-style-type: none"> <li>H226 - Flammable liquid and vapor.</li> <li>H332 - Harmful if inhaled.</li> <li>H314 - Causes severe skin burns and eye damage.</li> <li>H350 - May cause cancer.</li> </ul>
<b><u>Precautionary statements</u></b>	
<b>General</b>	: <ul style="list-style-type: none"> <li>P103 - Read label before use.</li> <li>P102 - Keep out of reach of children.</li> <li>P101 - If medical advice is needed, have product container or label at hand.</li> </ul>
<b>Prevention</b>	: <ul style="list-style-type: none"> <li>P201 - Obtain special instructions before use.</li> <li>P202 - Do not handle until all safety precautions have been read and understood.</li> <li>P281 - Use personal protective equipment as required.</li> <li>P280 - Wear protective gloves: &gt; 8 hours (breakthrough time): nitrile rubber. Wear eye or face protection: Recommended: chemical splash goggles and/or face shield.. Wear protective clothing: Recommended: overall safety apron.</li> <li>P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.</li> <li>P242 - Use only non-sparking tools.</li> <li>P243 - Take precautionary measures against static discharge.</li> <li>P233 - Keep container tightly closed.</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> <li>P261 - Avoid breathing vapor.</li> <li>P264 - Wash hands thoroughly after handling.</li> </ul>
<b>Response</b>	: <ul style="list-style-type: none"> <li>P308 + P313 - IF exposed or concerned: Obtain medical attention.</li> <li>P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.</li> <li>P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.</li> <li>P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.</li> <li>P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.</li> </ul>
<b>Storage</b>	: <ul style="list-style-type: none"> <li>Store in accordance with all local, regional, national and international regulations.</li> <li>P403 - Store in a well-ventilated place.</li> <li>P235 - Keep cool.</li> </ul>
<b>Disposal</b>	: <ul style="list-style-type: none"> <li>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</li> </ul>
<b>Hazards not otherwise classified</b>	: None known.
<b>Routes of entry</b>	: <ul style="list-style-type: none"> <li>Dermal contact. Eye contact. Inhalation.</li> </ul> <p>INGESTION: Although not a normal route of entry, ingestion is expected to be harmful. DO NOT TAKE INTERNALLY. FOR INDUSTRIAL USE ONLY.</p>

## Section 2. Hazards identification

### Target organs

- : Contains material which causes damage to the following organs: skin.
- Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, spleen, gastrointestinal tract, upper respiratory tract, central nervous system (CNS), ears, eye, lens or cornea.

## Section 3. Composition/information on ingredients

### Substance/mixture

: Mixture

### Chemical name

: Not available.

### Other means of identification

: Asphaltene Dispersant

### CAS number/other identifiers

#### CAS number

: Not applicable.

Ingredient name	%	CAS number
Proprietary	60 - 100	Proprietary
Proprietary	10 - 30	Proprietary
Proprietary	1 - 5	Proprietary
Isopropanol	1 - 5	67-63-0
Proprietary	0 - 1	Proprietary
Proprietary	0 - 1	Proprietary

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

- : If irritation persists, obtain medical attention. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician.

#### Inhalation

- : If irritation persists, obtain medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.



## Section 4. First aid measures

- Skin contact** : If irritation persists, obtain medical attention. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : If irritation persists, obtain medical attention. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

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

Name	Category	Route of exposure	Target organs
Not available.			

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Name	Result
Proprietary	ASPIRATION HAZARD - Category 1



## Section 4. First aid measures

### 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

**Additional Vapor Statement** : Not available.  
Not available.

**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.

**Remark** : Not available.

**Remark** : Not available.

## 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. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

**For emergency responders** : If specialised 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).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large 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). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. 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). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

**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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from alkalis. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.



## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

Ingredient name	Exposure limits
Proprietary	<p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 100 ppm 8 hours.  TWA: 434 mg/m<sup>3</sup> 8 hours.  STEL: 150 ppm 15 minutes.  STEL: 651 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>  TWA: 100 ppm 8 hours.  TWA: 435 mg/m<sup>3</sup> 8 hours.  STEL: 150 ppm 15 minutes.  STEL: 655 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b>  TWA: 100 ppm 8 hours.  TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Proprietary	<p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 20 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>  TWA: 100 ppm 8 hours.  TWA: 435 mg/m<sup>3</sup> 8 hours.  STEL: 125 ppm 15 minutes.  STEL: 545 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b>  TWA: 100 ppm 10 hours.  TWA: 435 mg/m<sup>3</sup> 10 hours.  STEL: 125 ppm 15 minutes.  STEL: 545 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b>  TWA: 100 ppm 8 hours.  TWA: 435 mg/m<sup>3</sup> 8 hours.</p>
Isopropanol	<p><b>ACGIH TLV (United States, 4/2014).</b>  TWA: 200 ppm 8 hours.  STEL: 400 ppm 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>  TWA: 400 ppm 8 hours.  TWA: 980 mg/m<sup>3</sup> 8 hours.  STEL: 500 ppm 15 minutes.  STEL: 1225 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 10/2013).</b>  TWA: 400 ppm 10 hours.  TWA: 980 mg/m<sup>3</sup> 10 hours.  STEL: 500 ppm 15 minutes.  STEL: 1225 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL (United States, 2/2013).</b>  TWA: 400 ppm 8 hours.  TWA: 980 mg/m<sup>3</sup> 8 hours.</p>
Proprietary	<p><b>OSHA PEL 1989 (United States, 3/1989).</b>  <b>Absorbed through skin.</b>  TWA: 50 ppm 8 hours.  TWA: 245 mg/m<sup>3</sup> 8 hours.</p> <p><b>NIOSH REL (United States, 10/2013).</b>  <b>Absorbed through skin.</b>  TWA: 50 ppm 10 hours.  TWA: 245 mg/m<sup>3</sup> 10 hours.</p>



## Section 8. Exposure controls/personal protection

Proprietary

**ACGIH TLV (United States, 4/2014).**

TWA: 50 ppm 8 hours.

**OSHA PEL (United States, 2/2013).**

**Absorbed through skin.**

TWA: 50 ppm 8 hours.

TWA: 245 mg/m<sup>3</sup> 8 hours.

**OSHA PEL 1989 (United States, 3/1989).**

TWA: 1 mg/m<sup>3</sup> 8 hours.

**NIOSH REL (United States, 10/2013).**

TWA: 1 mg/m<sup>3</sup> 10 hours.

**ACGIH TLV (United States, 4/2014).**

TWA: 0.2 mg/m<sup>3</sup> 8 hours. Form: Thoracic fraction

**OSHA PEL (United States, 2/2013).**

TWA: 1 mg/m<sup>3</sup> 8 hours.

### Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### 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. Wash contaminated clothing before reusing.

#### 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: chemical splash goggles and/or face shield.

#### Skin protection


##### Hand 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. > 8 hours (breakthrough time): nitrile rubber

##### 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. Recommended: overall safety apron

## Section 8. Exposure controls/personal protection

<b>Other skin protection</b>	: 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. Recommended: nitrile rubber
<b>Respiratory protection</b>	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Personal protective equipment (Pictograms)</b>	: 

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid. [Clear.]
<b>Color</b>	:  Brown.
<b>Odor</b>	: Aromatic.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: 1.5 to 2.5
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: Not available.
<b>Flash point</b>	: Closed cup: 32.222°C (90°F) [Pensky-Martens.]
<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	:  0.86 to 0.89
<b>Density</b>	:  7.17 to 7.44 (lbs/gal)
<b>Solubility</b>	: Insoluble in the following materials: cold water.
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Type of aerosol</b>	: Not applicable.
<b>Heat of combustion</b>	: Not available.
<b>Ignition distance</b>	: Not applicable.
<b>Enclosed space ignition - Time equivalent</b>	: Not applicable.

## Section 9. Physical and chemical properties

**Enclosed space ignition - Deflagration density** : Not applicable.

**Flame height** : Not applicable.

**Flame duration** : Not applicable.

## 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). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

**Incompatible materials** : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.  
Reactive or incompatible with the following materials:  
alkalis  
oxidizing materials

**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

Product/ingredient name	Result	Species	Dose	Exposure
Proprietary	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Proprietary	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Proprietary	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	775 mg/kg	-
Isopropanol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Proprietary	LC50 Inhalation Vapor	Rat	39000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	1400 mg/kg	-
Proprietary	LD50 Oral	Rat	2140 mg/kg	-

**Conclusion/Summary** : Not available.



## Section 11. Toxicological information

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Proprietary	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Proprietary	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Isopropanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Proprietary	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	86 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
Proprietary	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 5 milligrams	-

**Skin** : Not available.

**Eyes** : Not available.

**Respiratory** : Not available.

### Sensitization

Product/ingredient name	Route of exposure	Species	Result
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Not available.

**Skin** : Not available.

**Respiratory** : Not available.

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
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Not available.

**Conclusion/Summary** : Not available.

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
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Not available.

## Section 11. Toxicological information

**Conclusion/Summary** : Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Proprietary	-	3	-
Proprietary	-	2B	-
Isopropanol	-	3	-
Proprietary	-	2B	-
Proprietary	-	1	Known to be a human carcinogen.

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Not available.						

**Conclusion/Summary** : Not available.

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available.				

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Not available.			

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Name	Result
Proprietary	ASPIRATION HAZARD - Category 1

**Information on the likely ToxKinetics - routes of exposure** : Routes of entry anticipated: Dermal, Inhalation.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.

## Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur
- Ingestion** : ☒ Adverse symptoms may include the following:  
 stomach pains

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

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : ☒ May cause cancer. Risk of cancer depends on duration and level of exposure.
- 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

#### Acute toxicity estimates

Route	ATE value
<input checked="" type="checkbox"/> Oral	3684.4 mg/kg
Dermal	59393.2 mg/kg
Inhalation (gases)	6498.8 ppm

- Interactive effects** : Not available.

- Other information** : Not available.

## Section 12. Ecological information

### Toxicity



## Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Proprietary	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
Proprietary	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 5200 µg/l Marine water	Crustaceans - Americamysis bahia	48 hours
Proprietary	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Proprietary	Acute EC50 5.65 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Isopropanol	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
Proprietary	Acute LC50 1400000 µg/l	Fish - Gambusia affinis	96 hours
	Acute EC50 2600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 7400 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 10600 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Proprietary	Acute LC50 42500 µg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 42 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

**Conclusion/Summary** : Not available.

### Persistence and degradability

Not available.

### Product/ingredient name

Not available.

**Conclusion/Summary** : Not available.

### Product/ingredient name

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Proprietary	3.12	8.1 to 25.9	low
Proprietary	3.6	-	low
Isopropanol	0.05	-	low
Proprietary	3.55	94.69	low

## Section 12. Ecological information

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : 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 at all times 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Waste stream** : Not available.

**RCRA classification** : Not available.

### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Proprietary	Proprietary	Listed	Proprietary

## Section 14. Transport information

Regulatory information	UN/NA Number	Proper shipping name	Hazard Class(es)	PG*
DOT Classification		PG* : Packing group		
	UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Petroleum Solvent, Organic Acid) RQ (Petroleum Solvent)	3 (8)	III

### Additional information

**Emergency Response Guide (ERG):132**

### Reportable quantity

108.77 lbs / 49.38 kg [14.908 gal / 56.434 L]

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

## Section 14. Transport information

### Label



### TDG

#### Classification

UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Petroleum Solvent, Organic Acid)	3 (8)	III
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#### Additional information

-

### Label



### IMDG Class

UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Petroleum Solvent, Organic Acid)	3 (8)	III
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Marine pollutant notes: : Not available.

#### Additional information

-

### Label



### IATA-DGR Class

UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Petroleum Solvent, Organic Acid)	3 (8)	III
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#### Additional information

-

### Label





## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 Not determined.  
☒ Clean Water Act (CWA) 307: Proprietary; Proprietary  
☒ Clean Water Act (CWA) 311: Proprietary; Proprietary; Proprietary; Proprietary

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

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

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

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

**DEA List II Chemicals** : Not listed  
 (Essential Chemicals)

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
<input checked="" type="checkbox"/> Proprietary	0 - 1	Yes.	1000	66.3	1000	66.3

**SARA 304 RQ** : ☒ 62690.5 lbs / 300861.5 kg [90833.4 gal / 343841.7 L]

### SARA 311/312

**Classification** : Fire hazard  
 Immediate (acute) health hazard  
 Delayed (chronic) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<input checked="" type="checkbox"/> Proprietary	60 - 100	Yes.	No.	No.	Yes.	No.
Proprietary	10 - 30	Yes.	No.	No.	Yes.	Yes.
Proprietary	1 - 5	No.	No.	No.	Yes.	No.
Isopropanol	1 - 5	Yes.	No.	No.	Yes.	Yes.
Proprietary	0 - 1	Yes.	No.	No.	Yes.	Yes.
Proprietary	0 - 1	No.	No.	No.	Yes.	Yes.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	<input checked="" type="checkbox"/> Proprietary	Proprietary	60 - 100
	Proprietary	Proprietary	10 - 30
	Isopropanol	67-63-0	1 - 5
<b>Supplier notification</b>	<input checked="" type="checkbox"/> Proprietary	Proprietary	60 - 100
	Proprietary	Proprietary	10 - 30
	Isopropanol	67-63-0	1 - 5

## Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : The following components are listed: Proprietary; Proprietary; ISOPROPYL ALCOHOL
- New York** : The following components are listed: Proprietary; Proprietary; Proprietary; Proprietary
- New Jersey** : The following components are listed: Proprietary; Proprietary; Proprietary; Proprietary; ISOPROPYL ALCOHOL; 2-PROPANOL
- Pennsylvania** : The following components are listed: Proprietary; Proprietary; Proprietary; Proprietary; 2-PROPANOL

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Proprietary	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Proprietary	Yes.	No.	No.	No.
Proprietary	No.	Yes.	No.	7000 µg/day (ingestion)
Proprietary	Yes.	No.	No.	No.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid  
Class D-2A: Material causing other toxic effects (Very toxic).  
Class E: Corrosive material

#### Canadian lists

- Canadian NPRI (Pollution Release)** : The following components are listed: Proprietary; Proprietary; Isopropyl alcohol
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory-DSL / NDSL** : Not determined.

### International lists

#### National inventory

- Australia** : Not determined.
- Canada** : Not determined.

## Section 15. Regulatory information

China	: Not determined.
Europe	: Not determined.
Japan	: Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Normal Package Size(s):** Ball: 2" Ball 50/Cooler; 4" Ball 12/Cooler  
 Dry Product: 50 Lbs/Box  
 Liquid: 5 Gallon/55 Gallon/Bulk  
 Pellets: 30 Lbs/Cooler; 24 Lbs/Pail  
 Stix: 1 1/4": 50 Each/Cooler

### History

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**Prepared by** : Jacam Regulatory Department

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### **Key to abbreviations**

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)



## Section 16. Other information

### References

UN = United Nations

: Not available.

▀ Indicates information that has changed from previously issued version.

### Notice to reader

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\*\*\* END OF SDS \*\*\*