



## Safety Data Sheet

### Section 1. Identification

**Product name** : ALPHA® NEUTRAL FLUX 373  
**Product code** : 115226  
**Product type** : Liquid.  
**Date of issue/Date of revision** : September 20 2023.

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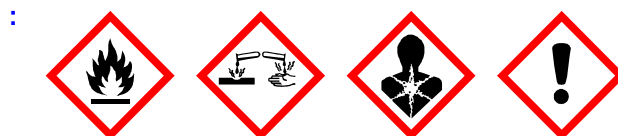
### Section 2. Hazards identification

**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 LIQUIDS - Category 2  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION - Category 1B  
SERIOUS EYE DAMAGE - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
AQUATIC HAZARD (ACUTE) - Category 3  
AQUATIC HAZARD (LONG-TERM) - Category 3

#### GHS label elements

##### Hazard pictograms



##### Signal word

: Danger

Continued on next page

## Section 2. Hazards identification

- Hazard statements** : Highly flammable liquid and vapor.  
Causes severe skin burns and eye damage.  
Harmful if inhaled.  
May cause drowsiness or dizziness.  
Suspected of causing cancer.  
Causes damage to organs. (respiratory tract)  
May cause damage to organs through prolonged or repeated exposure. (blood system, kidneys, liver)  
Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
- Response** : IF exposed: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Do not taste or swallow. Avoid contact with skin and clothing. Wash thoroughly after handling.
- Hazards not otherwise classified** : Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Isopropyl alcohol	70-80	67-63-0
Acetylinic glycol solution	1-10	-
Amine hydro halide	1-10	-
Alcohols, C8-10, ethoxylated propoxylated	1-10	68603-25-8
Amine	1-10	-
glycerol	1-10	56-81-5
Hydrobromic acid	1-10	10035-10-6

A Trade Secret exemption is pending with the HMIRC for one or more ingredients in this product. Registry Number: 10377 on August 31, 2016

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 and hence require reporting in this section.**

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

*Continued on next page*

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. 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 mists 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash skin thoroughly with soap and water or use recognized skin cleanser. 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** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Causes damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns. Causes damage to organs following a single exposure in contact with skin. Defatting to the skin.
- Ingestion** : Corrosive to the digestive tract. Causes burns. Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
blistering may occur

## Section 4. First aid measures

**Ingestion** : Adverse symptoms may include the following:  
stomach pains

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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 mists 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** : Highly flammable liquid and vapor. 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. 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. 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  
nitrogen oxides  
halogenated compounds

**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. 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.

**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".

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## Section 6. Accidental release measures

**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

- 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). 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. Avoid release to the environment. 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. 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 between the following temperatures: 10 to 43°C (50 to 109.4°F). 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. Store locked up. Eliminate all ignition sources. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Isopropyl alcohol

**ACGIH TLV (United States, 3/2017). Notes: Refers to Appendix A - Carcinogens. ACGIH 2003 Adoption**

STEL: 400 ppm 15 minutes.

TWA: 200 ppm 8 hours.

**NIOSH REL (United States, 10/2016).**

STEL: 1225 mg/m<sup>3</sup> 15 minutes.

STEL: 500 ppm 15 minutes.

TWA: 980 mg/m<sup>3</sup> 10 hours.

TWA: 400 ppm 10 hours.

**OSHA PEL (United States, 6/2016).**

TWA: 980 mg/m<sup>3</sup> 8 hours.

TWA: 400 ppm 8 hours.

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

STEL: 1225 mg/m<sup>3</sup> 15 minutes.

STEL: 500 ppm 15 minutes.

TWA: 980 mg/m<sup>3</sup> 8 hours.

TWA: 400 ppm 8 hours.

Amine

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

TWA: 3 ppm 8 hours.

TWA: 15 mg/m<sup>3</sup> 8 hours.

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: All forms

TWA: 3 ppm 8 hours. Form: All forms

**NIOSH REL (United States, 10/2016).**

TWA: 3 ppm 10 hours.

TWA: 15 mg/m<sup>3</sup> 10 hours.

**NIOSH REL (United States, 6/2001).**

TWA: 15 mg/m<sup>3</sup> 10 hours. Form: All forms

TWA: 3 ppm 10 hours. Form: All forms

**ACGIH TLV (United States, 3/2017). Absorbed through skin.**

TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction and vapor

**ACGIH TLV (United States, 2/2003). Absorbed through skin.**

**Notes: 1994-1995 Adoption**

TWA: 2 mg/m<sup>3</sup> 8 hours. Form: All forms

TWA: 0.46 ppm 8 hours. Form: All forms

glycerol

**OSHA PEL (United States, 6/2016).**

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust

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

TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction

TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust

Hydrobromic acid

**ACGIH TLV (United States, 3/2017). Notes: ACGIH 2004 Adoption**

C: 2 ppm

**NIOSH REL (United States, 10/2016).**

CEIL: 10 mg/m<sup>3</sup>

CEIL: 3 ppm

**OSHA PEL (United States, 6/2016).**

TWA: 10 mg/m<sup>3</sup> 8 hours.

TWA: 3 ppm 8 hours.

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

CEIL: 10 mg/m<sup>3</sup>

CEIL: 3 ppm

### 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.

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## Section 8. Exposure controls/personal protection

- 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. Ensure that eyewash stations and safety showers are close to the workstation location.
- 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.
- 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.
- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : Clear. Colorless.
- Odor** : Alcohol-like.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: 12°C (53.6°F) [Tag Closed Cup]
- Evaporation rate** : Not available.
- Flammability** : Not available.

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## Section 9. Physical and chemical properties and safety characteristics

<b>Lower and upper explosion limit/flammability limit</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Relative vapor density</b>	: >1 [Air = 1]
<b>Relative density</b>	: 0.8394
<b>Solubility</b>	: Easily soluble in the following materials: cold water.
<b>VOC</b>	: 713.2 g/l
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: 399°C (750.2°F)
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Flow time (ISO 2431)</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	: 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.
<b>Incompatibility with various substances</b>	: Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals, acids, alkalis and moisture.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Other Hazardous decomposition products</b>	: carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> etc.), hydrogen chloride
<b>Hazardous polymerization</b>	: Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Isopropyl alcohol	LD50 Dermal	Rabbit	6290 mg/kg	-
	LD50 Oral	Rat	4.7 g/kg	-
Acetylinic glycol solution	LD50 Oral	Mouse	1830 mg/kg	-
	LD50 Oral	Rat	5700 mg/kg	-
	LD50 Oral	Rat	5700 mg/kg	-
	LD50 Oral	Rat	1070 mg/kg	-
Amine hydro halide	LD50 Oral	Rat	1070 mg/kg	-
	LD50 Dermal	Rabbit - Male	1610 mg/kg	-
Alcohols, C8-10, ethoxylated propoxylated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	780 mg/kg	-
	LD50 Oral	Rat	1090 mg/kg	-
	LD50 Oral	Rat	2.4 ml/kg	-
Amine	LD50 Oral	Rat	2.4 ml/kg	-
	LD50 Dermal	Rabbit	8180 mg/kg	-

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## Section 11. Toxicological information

glycerol	LD50 Oral	Mouse	3300 mg/kg	-
	LD50 Oral	Rabbit	2200 mg/kg	-
	LD50 Oral	Rat	680 mg/kg	-
	LD50 Intraperitoneal	Mouse	8700 mg/kg	-
Hydrobromic acid	LD50 Intravenous	Rabbit	53 g/kg	-
	LD50 Oral	Guinea pig	7750 mg/kg	-
	LD50 Oral	Rat	12600 mg/kg	-
	LC50 Inhalation Gas.	Rat	2858 ppm	1 hours
	LC50 Inhalation Vapor	Mouse	814 ppm	1 hours
	LC50 Inhalation Vapor	Rat	2858 ppm	1 hours

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
Alcohols, C8-10, ethoxylated propoxylated Amine	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	5500 milligrams	-
glycerol	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	50 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

### Sensitization

Not available.

### Mutagenicity

Not available.

### Carcinogenicity

Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Isopropyl alcohol	-	3	-
Amine	-	2B	-

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Amine hydro halide	Equivocal	-	-	Mouse	Intraperitoneal: 3825 mg/kg	-
Amine	Equivocal	-	-	Mouse	Oral: 12 g/kg	-
	Positive	-	Positive	Rat - Female	Subcutaneous: 1500 mg/kg	9 days During Pregnancy; 6 hours per day

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## Section 11. Toxicological information

	-	Positive	-	Rat - Male	Oral: 2500 ppm	13 weeks; 7 days per week
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### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Isopropyl alcohol Hydrobromic acid	Category 3 Category 1	- inhalation	Narcotic effects respiratory tract

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Amine	Category 2	-	blood system, kidneys, liver

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. Causes damage to organs following a single exposure if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns. Causes damage to organs following a single exposure in contact with skin. Defatting to the skin.
- Ingestion** : Corrosive to the digestive tract. Causes burns. Causes damage to organs following a single exposure if swallowed. 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  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
dryness  
cracking  
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

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## Section 11. Toxicological information

**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

Product/ingredient name	Result	Species	Dose	Exposure
Amine	Chronic TD50 Oral	Mouse	1000 mg/kg	-
	Chronic TD50 Oral	Rat	25 mg/kg	-

**General** : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	3729 mg/kg
Dermal	47117.81 mg/kg
Inhalation (gases)	4733.3 ppm

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Isopropyl alcohol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
Acetylinic glycol solution	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 46.4 to 100 mg/l	Fish	96 hours
Amine hydro halide	LC50 9 mg/l	Algae	96 hours
	Acute EC50 12 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
		Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Amine	Acute LC50 28800 µg/l Fresh water	Daphnia	96 hours
	Acute LC50 100 mg/l	Daphnia	96 hours
	Acute LC50 >100 mg/l	Daphnia	96 hours
	Acute LC50 2150 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
Hydrobromic acid	Acute LC50 100 mg/l	Fish	96 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute LC50 1370 mg/l	Fish	96 hours
	Acute LC50 1480 mg/l	Fish	96 hours
	EC50 130 mg/l	Algae	72 hours

### Persistence and degradability

Not available.

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## Section 12. Ecological information

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Isopropyl alcohol	0.05	-	low
Amine hydro halide	-3.28	-	low
Amine	-1.43	-	low
glycerol	-1.76	-	low

### Mobility in soil







Soil/water partition coefficient (K<sub>oc</sub>) : 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.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	UN	IMDG	IATA
UN number	UN1219	UN1219	UN1219	UN1219	UN1219	UN1219
UN proper shipping name	Isopropanol solution	Isopropanol solution	Isopropanol solution	Isopropanol solution	Isopropanol solution	Isopropanol solution
Transport hazard class(es)	3 	3 	3 	3 	3 	3 
Packing group	II	II	II	II	II	II
Environmental hazards	No.	No.	No.	No.	No.	No.

## Section 14. Transport information

<b>Additional information - DOT Classification</b>	ERG# 129
<b>Additional information - IATA Classification</b>	The environmentally hazardous substance mark may appear if required by other transportation regulations.

**Special precautions for user** : **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.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 5(a)2 proposed significant new use rule (SNUR): No products were found.  
TSCA 5(a)2 final significant new use rule (SNUR): No products were found.  
TSCA 12(b) one-time export notification: No products were found.  
TSCA 12(b) annual export notification: No products were found.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

### SARA 302/304

#### Composition/information on ingredients

No products were found.

### SARA 311/312

#### **Classification**

: FLAMMABLE LIQUIDS - Category 2  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION - Category 1B  
SERIOUS EYE DAMAGE - Category 1  
CARCINOGENICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (Narcotic effects) - Category 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2  
HNOC - Corrosive to digestive tract  
HNOC - Defatting irritant

### SARA 313

	<b>Product name</b>	<b>CAS number</b>	<b>%</b>
<b>Form R - Reporting requirements</b>	Amine	-	1-10
<b>Supplier notification</b>	Amine	-	1-10

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.

### California Prop. 65

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

### Canada

**Canada inventory** : All components are listed or exempted.

### International regulations

#### Inventory list

**Australia** : All components are listed or exempted.

*Continued on next page*

## Section 15. Regulatory information

<b>China</b>	: All components are listed or exempted.
<b>Japan</b>	: All components are listed or exempted.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	1
Flammability	3
Physical hazards	0

### Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION - Category 1B	Calculation method
SERIOUS EYE DAMAGE - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

### History

<b>Date of issue/Date of revision</b>	: 9/20/2023
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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 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
: N/A = Not available
: SGG = Segregation Group
: UN = United Nations

### References

: Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

Continued on next page

## **Section 16. Other information**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.