

SAFETY DATA SHEET

Rust Converter

Section 1. Identification

GHS product identifier	: Rust Converter
Product code	: 151520
Other means of identification	: Not available.
Color	: Dark-Brown. Black.
Product type	: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Lubricating agent-Release products

Uses advised against

Not applicable.

Supplier's details	: WEICON GmbH & Co. KG Königsberger Str. 255, 48157 Münster, Germany phone:+49 251 93220, email: info@weicon.de, URL: www.weicon.de
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e-mail address of person responsible for this SDS	: msds@weicon.de
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Emergency telephone number (with hours of operation)	: +1 202 464 2554 TRANSPORT (24 Hours/Day): +1 202 464 2554
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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).
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Classification of the substance or mixture	: CORROSIVE TO METALS - Category 1 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1
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GHS label elements

Hazard pictograms



Signal word	: Danger
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Hazard statements	: H290 - May be corrosive to metals. H315 - Causes skin irritation. H318 - Causes serious eye damage.
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Precautionary statements

Prevention	: P280 - Wear protective gloves. Wear eye or face protection.
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Response	: P305 + P351 + P338, P310 - 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.
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Storage	: Not applicable.
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Disposal	: Not applicable.
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Section 2. Hazards identification

Hazards not otherwise classified : None known.

Hazards identified when used : No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	Synonyms	%	Identifiers
Isopropyl alcohol	isopropanol; 2-Propanol	≥7 - ≤13	CAS: 67-63-0
1-ethoxypropan-2-ol	2PG1EE; 1-ethoxy-2-propanol; propylene glycol monoethyl ether; 2-Propanol, 1-ethoxy-; propylene glycol ethyl ether; solution containing by weight: - 0.1 % or more but not more than 15 % of alkoxygroups-containing siloxane polymer with alkyl or aryl substituents - 70 % or more of an organic solvent containing one or more of propyleneglycolethylether (CAS RN 1569-02-4), propylene glycol monomethylether acetate (CAS RN 108-65-6) or propyleneglycol propylether (CAS RN 1569-01-3); 2-Propanol-1-ethoxy; Polyoxyalkylene (C2-4,8) monoalkyl(or alkenyl) (C1-24) ether (n1-150); Alkylene(C2-8) glycol monoalkyl(C2-8) ether; 1-Ethoxypropane-2-ol; PROPAN-2-OL, 1-ETHOXY	≥1 - ≤5	CAS: 1569-02-4
zinc nitrate	Nitric acid, zinc salt (2:1); Nitric acid, zinc salt; Zinc(II) nitrate; Zinc dinitrate	≥1 - ≤5	CAS: 7779-88-6
Phosphoric acid		≥0.1 - ≤1	CAS: 7664-38-2
nitric acid	Nitric acid, >70%, other than red fuming; White fuming nitric acid; Red fuming nitric acid; Hydrogen nitrate; Engravers acid; Aqua fortis; WFNA; RFNA; azotic acid; nital; nitryl hydroxide; spirit of nitre; salpetre acid; Concentrated Nitric Acid (70%); Nitric acid, red fuming	≥0.1 - ≤1	CAS: 7697-37-2

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.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. 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 10 minutes. 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 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. 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 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 10 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** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

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

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.

Section 4. First aid measures

- 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 an extinguishing agent suitable for the surrounding fire.

- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

- 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.

- 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. 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".

- 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. Absorb with an inert material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

- Large spill** : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. 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. 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. 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.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- 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 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 in a corrosion resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep away from metals. 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

Ingredient name	Exposure limits
Isopropyl alcohol	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 400 ppm. TWA 10 hours: 980 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1225 mg/m³.</p> <p>CAL OSHA PEL (United States, 1/2025) STEL 15 minutes: 1225 mg/m³. STEL 15 minutes: 500 ppm. TWA 8 hours: 980 mg/m³. TWA 8 hours: 400 ppm.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³.</p> <p>OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 400 ppm. TWA 8 hours: 980 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1225 mg/m³.</p> <p>ACGIH TLV (United States, 1/2025) A4. TWA 8 hours: 200 ppm. STEL 15 minutes: 400 ppm.</p>
1-ethoxypropan-2-ol	<p>ACGIH TLV (United States, 1/2025) Absorbed through skin. STEL 15 minutes: 200 ppm. TWA 8 hours: 50 ppm.</p>
zinc nitrate	None.
Phosphoric acid	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 1 mg/m³. STEL 15 minutes: 3 mg/m³.</p> <p>CAL OSHA PEL (United States, 1/2025) STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³.</p>

Section 8. Exposure controls/personal protection

nitric acid

OSHA PEL (United States, 5/2018)
TWA 8 hours: 1 mg/m³.
OSHA PEL 1989 (United States, 3/1989)
TWA 8 hours: 1 mg/m³.STEL 15 minutes: 3 mg/m³.
ACGIH TLV (United States, 1/2025)
TWA 8 hours: 1 mg/m³.STEL 15 minutes: 3 mg/m³.
NIOSH REL (United States, 10/2020)

TWA 10 hours: 2 ppm.

TWA 10 hours: 5 mg/m³.

STEL 15 minutes: 4 ppm.

STEL 15 minutes: 10 mg/m³.
CAL OSHA PEL (United States, 1/2025)
STEL 15 minutes: 10 mg/m³.

STEL 15 minutes: 4 ppm.

TWA 8 hours: 5 mg/m³.

TWA 8 hours: 2 ppm.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 2 ppm.

TWA 8 hours: 5 mg/m³.
OSHA PEL 1989 (United States, 3/1989)

TWA 8 hours: 2 ppm.

TWA 8 hours: 5 mg/m³.

STEL 15 minutes: 4 ppm.

STEL 15 minutes: 10 mg/m³.
ACGIH TLV (United States, 1/2025) A4.

TWA 8 hours: 2 ppm.

TWA 8 hours: 5.2 mg/m³.

STEL 15 minutes: 4 ppm.

STEL 15 minutes: 10 mg/m³.

Biological exposure indices

Ingredient name	Exposure indices
Isopropyl alcohol	ACGIH BEI (United States, 1/2025) BEI: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.

Appropriate engineering controls

- : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Section 8. Exposure controls/personal 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. Recommended : 1 - 4 hours (breakthrough time): Protective gloves made of nitrile rubber (material thickness of 0,4 mm); EN 374-5 Cat. III ; 4 - 8 hours (breakthrough time): Protective gloves made of Viton®/ butyl rubber (material thickness of 0,7 mm); EN388 Cat.II / EN374 Cat.III / EN374-2
- 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.
- 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. Recommended : organic vapor (Type AX) and particulate filter

Section 9. Physical and chemical properties

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

Appearance

- Physical state** : Liquid.
- Color** : Dark-Brown. Black.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : 1.4 to 2 [Conc. (% w/w): 100%]
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 100°C (212°F)
- Flash point** :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
Isopropyl alcohol	11.7	53.1				
1-ethoxypropan-2-ol	40	104	IP 34/88			

- Evaporation rate** : Not available.
- Flammability** : Highly flammable in the presence of the following materials or conditions: heat.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Isopropyl alcohol	33.00268	4.4				
1-ethoxypropan-2-ol	7.50061	1				
Phosphoric acid	0.03	0.004				

- Relative vapor density** : Not available.
- Relative density** : Not available.
- Solubility(ies)** :

Section 9. Physical and chemical properties

Media	Result
cold water	Soluble

Solubility in water	: Not available.
Miscible with water	: Yes.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): 1 mm ² /s (1 cSt) Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size	: Not applicable.
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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	: No specific data.
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 metals
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
Isopropyl alcohol	Rabbit - Dermal - LD50 12800 mg/kg Rat - Oral - LD50 5000 mg/kg Toxic effects: Behavioral - General anesthetic
1-ethoxypropan-2-ol	Rat - Oral - LD50 4400 mg/kg Rabbit - Dermal - LD50 8100 mg/kg
Phosphoric acid	Rat - Oral - LD50 1.25 g/kg Toxic effects: Lung, Thorax, or Respiration - Acute pulmonary edema Liver - Changes in liver weight
nitric acid	Rat - Inhalation - LC50 Gas. 2500 ppm [4 hours] Rat - Inhalation - LC50 Vapor 130 mg/m ³ [4 hours]

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Isopropyl alcohol

Result

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Isopropyl alcohol

Result

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 10 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 100 mg

1-ethoxypropan-2-ol

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Isopropyl alcohol	-	3	-
zinc nitrate	-	2A	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

propan-2-ol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

1-ethoxypropan-2-ol

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

zinc nitrate

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- 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

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

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Rust Converter	7812.5	N/A	N/A	N/A	N/A
propan-2-ol	5000	12800	N/A	N/A	N/A
1-ethoxypropan-2-ol	4400	8100	N/A	N/A	N/A
zinc nitrate	500	N/A	N/A	N/A	N/A
nitric acid	N/A	N/A	N/A	2.65	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Isopropyl alcohol

Result

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*
1400 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Harlequinfish, red rasbora - *Rasbora heteromorpha*

Size: 1 to 3 cm

4200 mg/l [96 hours]

Effect: Mortality

zinc nitrate

Acute - LC50 - Fresh water

Fish - Minnow - *Phoxinus phoxinus* - Adult

Size: 56 to 86 mm

3200 µg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

US EPA, OECD

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: 20 to 24 hours

0.553 mg/l [48 hours]

Effect: Mortality

Phosphoric acid

Acute - LC50 - Fresh water

US EPA

Fish - Bluegill - *Lepomis macrochirus*

Weight: 0.39 g

60 ppm [96 hours]

Section 12. Ecological information

Effect: Mortality

Acute - LC50 - Fresh water

US EPA

Daphnia - Water flea - *Daphnia magna*

Age: <48 hours

89 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Green crab - *Carcinus maenas* - Adult

180 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Western mosquitofish - *Gambusia affinis* - Adult

72 ppm [96 hours]

Effect: Mortality

nitric acid

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Isopropyl alcohol	0.05	-	Low
1-ethoxypropan-2-ol	<1	-	Low
zinc nitrate	-	60960	High
nitric acid	-0.21	-	Low

Mobility in soil

Soil/Water partition coefficient : 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. 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	IMDG	IATA
UN number	UN3264	UN3264	UN3264	UN3264	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O. S.	LIQUIDO CORROSIVO, ACIDO, INORGANICO, N. E.P.	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O. S. (Phosphoric acid)	Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid)
Transport hazard class(es)	8 	8 	8 	8 	8 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification

: **Reportable quantity** 25000 lbs / 11350 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

Limited quantity Yes.

Packaging instruction Exceptions: 154. Non-bulk: 203. Bulk: 241.

Quantity limitation Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.

Special provisions IB3, T7, TP1, TP28

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).

Explosive Limit and Limited Quantity Index 5

Passenger Carrying Road or Rail Index 5

Special provisions 16

Mexico Classification

: **Special provisions** 223, 274

IMDG

: **Emergency schedules** F-A, S-B

Special provisions 223, 274

IATA

: **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852. Cargo Aircraft Only: 60 L. Packaging instructions: 856. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y841.

Special provisions A3, A803

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.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 307: zinc nitrate; zinc bis(dihydrogen phosphate)

Clean Water Act (CWA) 311: zinc nitrate; Phosphoric acid; nitric acid

TSCA 12(b) - Chemical export notification

Not applicable.

Section 15. Regulatory information

Clean Air Act Section 112 : Not listed

(b) Hazardous Air Pollutants (HAPs)

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) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
nitric acid	≥0.1 - ≤1	Yes.	1000	85.7	1000	85.7

SARA 304 RQ : 133333.3 lbs / 60533.3 kg

SARA 311/312

Classification : CORROSIVE TO METALS - Category 1
SKIN IRRITATION - Category 2
SERIOUS EYE DAMAGE - Category 1

Composition/information on ingredients

Name	%	Classification
Isopropyl alcohol	≥7 - ≤13	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1-ethoxypropan-2-ol	≥1 - ≤5	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
zinc nitrate	≥1 - ≤5	OXIDIZING SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Phosphoric acid	≥0.1 - ≤1	CORROSIVE TO METALS - Category 1 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
nitric acid	≥0.1 - ≤1	OXIDIZING LIQUIDS - Category 3 CORROSIVE TO METALS - Category 1 ACUTE TOXICITY (inhalation) - Category 3 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	zinc nitrate	7779-88-6	≥1 - ≤5
Supplier notification	zinc nitrate	7779-88-6	≥1 - ≤5

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

Section 15. Regulatory information

- Massachusetts** : The following components are listed: ISOPROPYL ALCOHOL; ZINC NITRATE
- New York** : The following components are listed: Zinc nitrate
- New Jersey** : The following components are listed: ISOPROPYL ALCOHOL; ZINC NITRATE
- Pennsylvania** : The following components are listed: 2-PROPANOL; NITRIC ACID, ZINC SALT
- California Prop. 65**

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Eurasian Economic Union** : **Russian Federation inventory**: Not determined.
- Japan** : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.
- New Zealand** : All components are listed or exempted.
- Philippines** : Not determined.
- Republic of Korea** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- Viet Nam** : Not determined.

Section 16. Other information

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

Health	/	3
Flammability		0
Physical hazards		4

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

Section 16. Other information



Procedure used to derive the classification

Classification	Justification
CORROSIVE TO METALS - Category 1	Expert judgment
SKIN IRRITATION - Category 2	Expert judgment
SERIOUS EYE DAMAGE - Category 1	On basis of test data

History

Date of printing : 2/3/2026

Date of issue/Date of revision : ***

Date of previous issue : 11/4/2025

Version : 1.3

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 DOT = Department of Transportation
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 IMO = International Maritime Organization
 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
 TDG = Transportation of Dangerous Goods
 UN = United Nations

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

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.