

# SAFETY DATA SHEET



Rust remover gel

## Section 1. Identification

**GHS product identifier** : Rust remover gel  
**Product code** : 2000086  
**Other means of identification** : Not available.  
**Color** : Blue.  
**Product type** : Liquid.

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

#### Identified uses

Not available.

#### 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

**e-mail address of person responsible for this SDS** : msds@weicon.de

**Emergency telephone number (with hours of operation)** : +1 202 464 2554  
TRANSPORT (24 Hours/Day): +1 202 464 2554

## 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** : CORROSIVE TO METALS - Category 1  
SKIN CORROSION - Category 1  
SERIOUS EYE DAMAGE - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### GHS label elements

#### Hazard pictograms



**Signal word** : Danger

**Hazard statements** : H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.  
H335 - May cause respiratory irritation.  
Corrosive to the respiratory tract.

### Precautionary statements

**Prevention** : P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves, protective clothing and eye or face protection.

**Response** : P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.

## Section 2. Hazards identification

<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of waste according to applicable legislation.
<b>Supplemental label elements</b>	: Keep container tightly closed. Do not breathe vapor or spray. Use only with adequate ventilation.
<b>Hazards not otherwise classified</b>	: None known.
<b>Hazards identified when used</b>	: No known significant effects or critical hazards.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Mixture
<b>Other means of identification</b>	: Not available.

Ingredient name	Synonyms	%	Identifiers
citric acid	1,2,3-Propanetricarboxylic acid, 2-hydroxy-; 2-Hydroxy-1,2,3-propanetricarboxylic acid; 2-Hydroxypropane-1,2,3-tricarboxylic acid; product consisting of sucrose, citric acid and ascorbic acid; product consisting of sucrose and citric acid; E 330; $\beta$ -hydroxytricarballic acid; ACIDE CITRIQUE; beta-Hydroxytricarballic acid; CITRIC ACID, ANHYDROUS; 2-hydroxy-1,2,3-propa-netricarboxylic acid; Anhydrous citric acid	$\geq 10 - \leq 30$	CAS: 77-92-9
glycolic acid	Acetic acid, 2-hydroxy-; Acetic acid, hydroxy-; Hydroxyacetic acid; 2-hydroxyacetic acid; Hydroxyacetic acid (9CA); Hydroxyethanoic acid; Alpha-hydroxyacetic acid; Glycolic acid and preparations containing it; Glycollic acid	$\geq 1 - \leq 5$	CAS: 79-14-1
Phosphoric acid		$\geq 1 - \leq 5$	CAS: 7664-38-2
Oxirane, 2-methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether	Oxirane, methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether; Ethoxylated propoxylated fatty alcohol (block copolymer); alpha-Hydro-omega-[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethoxy]poly[oxyethylene/oxy(1-methylethylene)]; Mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether of polymer of 2-methyloxirane / oxirane; Methyloxirane polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether	$\geq 1 - \leq 5$	CAS: 174955-61-4

## Section 3. Composition/information on ingredients

formic acid	Formic acid with more than 85% acid by mass; Methanoic acid; Hydrogen carboxylic acid; Formic acid 85-95% in aqueous solution; aminic acid; formylic acid; amasil; ameisensaure; aminic acid. bilorin; collo-bueglatt; collo-didax; ensilox; formira; formisoton; myrmicyl; sybest; wonderbond hardener M 600L; Formic acid (C, T); C1 ACID; Acidium formicum; Formic acid >85%; FORMIC ACID, conc.>90%; FORMIC ACID, 10%<conc.40%	≤0.1	CAS: 64-18-6
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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.
- 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** : Corrosive to the respiratory tract. Causes burns.
- Skin contact** : Causes severe burns.
- Ingestion** : May cause burns to mouth, throat and stomach.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- 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** : 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 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  
phosphorus 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".

## 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).

### 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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
citric acid	None.
glycolic acid	None.
Phosphoric acid	<b>NIOSH REL (United States, 10/2020)</b> TWA 10 hours: 1 mg/m <sup>3</sup> . STEL 15 minutes: 3 mg/m <sup>3</sup> . <b>CAL OSHA PEL (United States, 1/2025)</b> STEL 15 minutes: 3 mg/m <sup>3</sup> . TWA 8 hours: 1 mg/m <sup>3</sup> . <b>OSHA PEL (United States, 5/2018)</b> TWA 8 hours: 1 mg/m <sup>3</sup> . <b>OSHA PEL 1989 (United States, 3/1989)</b>

## Section 8. Exposure controls/personal protection

Oxirane, 2-methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether  
formic acid

TWA 8 hours: 1 mg/m<sup>3</sup>.  
STEL 15 minutes: 3 mg/m<sup>3</sup>.  
**ACGIH TLV (United States, 1/2025)**  
TWA 8 hours: 1 mg/m<sup>3</sup>.  
STEL 15 minutes: 3 mg/m<sup>3</sup>.

None.

**NIOSH REL (United States, 10/2020)**  
TWA 10 hours: 5 ppm.  
TWA 10 hours: 9 mg/m<sup>3</sup>.  
**CAL OSHA PEL (United States, 1/2025)**  
STEL 15 minutes: 19 mg/m<sup>3</sup>.  
STEL 15 minutes: 10 ppm.  
TWA 8 hours: 9 mg/m<sup>3</sup>.  
TWA 8 hours: 5 ppm.  
**OSHA PEL (United States, 5/2018)**  
TWA 8 hours: 5 ppm.  
TWA 8 hours: 9 mg/m<sup>3</sup>.  
**OSHA PEL 1989 (United States, 3/1989)**  
TWA 8 hours: 5 ppm.  
TWA 8 hours: 9 mg/m<sup>3</sup>.  
**ACGIH TLV (United States, 1/2025)**  
TWA 8 hours: 5 ppm.

### Biological exposure indices

No exposure indices known.

### Appropriate engineering controls

- : Use only with adequate ventilation. 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

##### 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.

## Section 8. Exposure controls/personal protection

- 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** : Blue.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : 2 [Conc. (% w/w): 100%]
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** :

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
formic acid	49.5	121.1	DIN EN ISO 13736			
citric acid	100	212				

- Evaporation rate** : Not available.
- Flammability** : Not available.
- 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
formic acid	32.03522	4.3	EU A.4			
Phosphoric acid	0.03	0.004				
glycolic acid	0.0031	0.00041	OECD 104			
citric acid	0.000000017	0.000000023				

- Relative vapor density** : Not available.
- Relative density** : Not available.
- Density** : 1.1 g/cm<sup>3</sup>
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** :

Ingredient name	°C	°F	Method
formic acid	434	813.2	
citric acid	1010	1850	

- Decomposition temperature** : Not available.

## Section 9. Physical and chemical properties

**Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.

### Particle characteristics

**Median particle size** : 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** : 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**

citric acid

**Rat - Oral - LD50**

3 g/kg

glycolic acid

**Rat - Oral - LD50**

1938 mg/kg

Toxic effects: Gastrointestinal - Other changes Gross Metabolite Changes - Weight loss or decreased weight gain

**Rat - Inhalation - LC50 Dusts and mists**

3600 mg/m<sup>3</sup> [4 hours]

Toxic effects: Olfaction - Other changes Lung, Thorax, or Respiration - Structural or functional change in trachea or bronchi Gross Metabolite Changes - Weight loss or decreased weight gain

Phosphoric acid

**Rat - Oral - LD50**

1.25 g/kg

Toxic effects: Lung, Thorax, or Respiration - Acute pulmonary edema Liver - Changes in liver weight

formic acid

**Rat - Oral - LD50**

730 mg/kg

Toxic effects: Gross Metabolite Changes - Weight loss or decreased weight gain

**Rat - Inhalation - LC50 Vapor**

7400 mg/m<sup>3</sup> [4 hours]

**Conclusion/Summary [Product]** : Not available.

### Skin corrosion/irritation

##### **Product/ingredient name**

##### **Result**

## Section 11. Toxicological information

citric acid	<b>Rabbit - Skin - Mild irritant</b> <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 500 mg
glycolic acid	<b>Rabbit - Skin - Moderate irritant</b> <u>Amount/concentration applied:</u> 0.5 Ml <b>Rabbit - Skin - Severe irritant</b> <u>Amount/concentration applied:</u> 0.5 Ml <b>Human - Skin - Moderate irritant</b> <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 70 pph
formic acid	<b>Rabbit - Skin - Mild irritant</b> <u>Amount/concentration applied:</u> 610 mg <b>Rabbit - Skin - Mild irritant</b> <u>Amount/concentration applied:</u> 610 mg

**Conclusion/Summary [Product]** : Not available.

### Serious eye damage/eye irritation

#### **Product/ingredient name**

#### **Result**

citric acid	<b>Rabbit - Eyes - Severe irritant</b> <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 750 ug
glycolic acid	<b>Rabbit - Eyes - Severe irritant</b> <u>Amount/concentration applied:</u> 2 mg <b>Rabbit - Eyes - Severe irritant</b> <u>Amount/concentration applied:</u> 0.1 Ml
formic acid	<b>Rabbit - Eyes - Severe irritant</b> <u>Amount/concentration applied:</u> 122 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.

## Section 11. Toxicological information

**Conclusion/Summary [Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

**Product/ingredient name**

citric acid

**Result**

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(Respiratory tract irritation) - 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** : Corrosive to the respiratory tract. Causes burns.
- 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** : Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
- 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.

## Section 11. Toxicological information

### 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 remover gel	25000	N/A	N/A	275.0	N/A
citric acid	3000	N/A	N/A	N/A	N/A
glycolic acid	N/A	N/A	N/A	11	N/A
Oxirane, 2-methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether	500	N/A	N/A	N/A	N/A
formic acid	730	N/A	N/A	N/A	0.5

## Section 12. Ecological information

### Toxicity

#### Product/ingredient name

citric acid

#### Result

##### **Acute - LC50 - Marine water**

Crustaceans - Green crab - *Carcinus maenas* - Adult

160 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]

Effect: Mortality

formic acid

##### **Acute - LC50 - Fresh water**

US EPA

Daphnia - Water flea - *Daphnia magna*

Age: <48 hours

89 mg/l [48 hours]

Effect: Mortality

##### **Acute - EC50 - Fresh water**

Daphnia - Water flea - *Daphnia magna* - Larvae

Age: <24 hours

151.2 mg/l [48 hours]

Effect: Intoxication

**Conclusion/Summary [Product]** : Not available.

### Persistence and degradability

Not available.

## Section 12. Ecological information

**Conclusion/Summary [Product]** : Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
citric acid	-1.8	-	Low
glycolic acid	<0.3	-	Low
formic acid	-2.3	-	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
<b>UN number</b>	UN1760	UN1760	UN1760	UN1760	UN1760
<b>UN proper shipping name</b>	Corrosive liquids, n.o.s.	CORROSIVE LIQUID, N.O.S.	LIQUIDO CORROSIVO, N. E.P.	CORROSIVE LIQUID, N.O.S. (glycolic acid, Phosphoric acid)	Corrosive liquid, n. o.s. (glycolic acid, Phosphoric acid)
<b>Transport hazard class(es)</b>	8 	8 	8 	8 	8 
<b>Packing group</b>	III	III	III	III	III
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

**DOT Classification** : **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

## Section 14. Transport information

- 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  
**IMDG Code Segregation group** SGG1 - Acids
- 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) 311:** Phosphoric acid; formic acid

### TSCA 12(b) - Chemical export notification

Not applicable.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

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

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

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

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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : CORROSIVE TO METALS - Category 1  
 SKIN CORROSION - Category 1  
 SERIOUS EYE DAMAGE - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

#### Composition/information on ingredients

## Section 15. Regulatory information

Name	%	Classification
citric acid	≥10 - ≤30	EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
glycolic acid	≥1 - ≤5	ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
Phosphoric acid	≥1 - ≤5	SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
Oxirane, 2-methyl-, polymer with oxirane, mono[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl] ether	≥1 - ≤5	ACUTE TOXICITY (oral) - Category 4 EYE IRRITATION - Category 2A
formic acid	≤0.1	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 3 SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1

### State regulations

- Massachusetts** : The following components are listed: PHOSPHORIC ACID
- New York** : The following components are listed: Phosphoric acid
- New Jersey** : The following components are listed: PHOSPHORIC ACID
- Pennsylvania** : The following components are listed: PHOSPHORIC ACID
- 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** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Eurasian Economic Union** : **Russian Federation inventory**: Not determined.
- Japan** : **Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.
- New Zealand** : Not determined.
- Philippines** : Not determined.
- Republic of Korea** : Not determined.
- Taiwan** : Not determined.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.

## Section 15. Regulatory information

Viet Nam : Not determined.

## Section 16. Other information

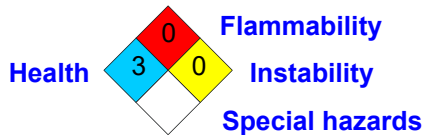
### Hazardous Material Information System (U.S.A.)

Health	/	4
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.)



### Procedure used to derive the classification

Classification	Justification
CORROSIVE TO METALS - Category 1 SKIN CORROSION - Category 1 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Expert judgment On basis of test data On basis of test data Calculation method

### History

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Version : 1.4

### 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

## 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.