

SAFETY DATA SHEET

ELECTROLYTE D2

Section 1. Identification

Product identifier : ELECTROLYTE D2
Cat. No. : 40900032
Container size : 1 l
Other means of identification : Not available.
Product type : Liquid.

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

Product use : For electrolytic preparation of metallographic specimens
Area of application : Professional applications.

Supplier's details : Struers Ltd
6200 Edwards Blvd.
Ontario
L5T 2V7 Mississauga
Canada

Telephone: +1 (905) 814 8855

e-mail address of person responsible for this SDS : sdsquestions@struers.dk

Emergency telephone number (with hours of operation) : Alberta & NWT:
Poison & Drug Information Service (PADIS): 1-800-332-1414
British Columbia:
Drug and Poison Information Centre (DPIC): 604-682-5050 / 1-800-567-8911
Ontario:
Poison Centre: 1-800-268-9017
Québec:
Poison Control Centre: 1-800-463-5060
Infotrac:
1-800-535-5053

Section 2. Hazard identification

Classification of the substance or mixture : H226 FLAMMABLE LIQUIDS - Category 3
H314 SKIN CORROSION - Category 1
H318 SERIOUS EYE DAMAGE - Category 1
H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Health Hazards Not Otherwise Classified - Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Date of issue/Date of revision : 20/03/2026 **Date of previous issue** : 13/01/2025 **Version** : 3 1/17

Section 2. Hazard identification

- Hazard statements** : H226 - Flammable liquid and vapor.
H314 - Causes severe skin burns and eye damage.
H336 - May cause drowsiness or dizziness.
Causes digestive tract burns.
- Precautionary statements**
- Prevention** : P280 - Wear protective gloves, protective clothing and eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing vapor.
P264 - Wash thoroughly after handling.
- Response** : P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
P363 - Wash contaminated clothing before reuse.
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.
- Storage** : P405 - Store locked up.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Do not taste or swallow. Wash thoroughly after handling.
- Other hazards which do not result in classification** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	Other names	% (w/w)	Identifiers
Phosphoric acid	-	≥15 - ≤40	CAS: 7664-38-2
ethanol	-	≥10 - ≤30	CAS: 64-17-5
propan-1-ol	-	≥1 - ≤5	CAS: 71-23-8

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns.
- Ingestion** : Corrosive to the digestive tract. Causes burns. 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

Section 4. First-aid measures

- 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 dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : 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.

- 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. 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.

Section 6. Accidental release measures

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. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. 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. 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. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

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



Occupational exposure limits

Ingredient name	Exposure limits
Phosphoric acid	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³. CA British Columbia Provincial (Canada, 3/2025) TWA 8 hours: 1 mg/m³. STEL 15 minutes: 3 mg/m³. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 1 mg/m³. STEL 15 minutes: 3 mg/m³. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 1 mg/m³. STEV 15 minutes: 3 mg/m³. CA Alberta Provincial (Canada, 3/2023) OEL 15 minutes: 3 mg/m³. OEL 8 hours: 1 mg/m³.
ethanol	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 3/2025) STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) STEL 15 minutes: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) C3. STEV 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm. OEL 8 hours: 1880 mg/m³.
propan-1-ol	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. CA British Columbia Provincial (Canada, 3/2025) TWA 8 hours: 100 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 100 ppm. CA Quebec Provincial (Canada, 2/2024) TWAEV 8 hours: 100 ppm. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 492 mg/m³. OEL 15 minutes: 984 mg/m³. OEL 15 minutes: 400 ppm. OEL 8 hours: 200 ppm.

Biological exposure indices

Section 8. Exposure controls/personal protection

No exposure indices known.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. 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.
Recommended: Butyl rubber gloves. The breakthrough time must be greater than the end use time of the product.
- 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. Recommended: (as filter combination A2/P2)



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	: Colorless.
Odor	: Odorless.
Odor threshold	: Not available.
Melting point and freezing point	: Not available.
Boiling point or initial boiling point and boiling range	: Not available.
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit or lower and upper flammability limit	: Not available.

Flash point : Closed cup: 23 to 60°C (73.4 to 140°F)

Auto-ignition temperature	:	<table><tr><th>Ingredient name</th><th>°C</th><th>°F</th><th>Method</th></tr><tr><td>ethanol</td><td>455</td><td>851</td><td>DIN 51794</td></tr></table>	Ingredient name	°C	°F	Method	ethanol	455	851	DIN 51794
	Ingredient name	°C	°F	Method						
ethanol	455	851	DIN 51794							

Decomposition temperature : Not available.

pH : <2

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): 6.8 mm²/s (6.8 cSt)
Kinematic (40°C (104°F)): Not available.

Solubility(ies)	:	Media	Result
		water	Soluble

Miscible with water : Yes.

Partition coefficient — n-octanol/water (logarithmic value) : Not applicable.

Vapor pressure	:		Vapor Pressure at 20°C			Vapor pressure at 50°C		
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		ethanol	42.94865	5.7				

Relative density : 1.11

Relative vapor density : Not available.

Particle characteristics

Median particle size : Not applicable.

Other information

Physical/chemical properties comments : No additional information.

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. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
Phosphoric acid	Rabbit - Dermal - LD50 2740 mg/kg Rat - Oral - LD50 1.25 g/kg	<u>Toxic effects:</u> Lung, Thorax, or Respiration - Acute pulmonary edema Liver - Changes in liver weight
ethanol	Rat - Oral - LD50 7060 mg/kg Rabbit - Dermal - LD50 >15800 mg/kg Rat - Inhalation - LC50 Vapor 124700 mg/m ³ [4 hours]	<u>Toxic effects:</u> Lung, Thorax, or Respiration - Other changes
propan-1-ol	Rat - Oral - LD50 2200 mg/kg Rabbit - Dermal - LD50 4032 mg/kg Rat - Male, Female - Inhalation - LC50 Vapor >33.8 mg/l [4 hours]	<u>Toxic effects:</u> Behavioral - General anesthetic OECD [Acute Dermal Toxicity] OECD 403 [Acute Inhalation Toxicity]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
-------------------------	--------

Section 11. Toxicological information

ethanol

Rabbit - Skin - Not irritant

OECD 404 [Acute Dermal Irritation/
Corrosion]

propan-1-ol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product]

: Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

ethanol

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24
hoursAmount/concentration applied: 500 mg

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure:

0.066666667 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 uL

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 1
hoursAmount/concentration applied: 50 pph

propan-1-ol

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24
hoursAmount/concentration applied: 20 mg

Conclusion/Summary [Product]

: Not available.

Respiratory corrosion/irritation

Conclusion/Summary [Product]

: Not available.

Respiratory or skin sensitization

Product/ingredient name

Result

propan-1-ol

Guinea pig - skin

Result: Not sensitizing

Human - skin

Result: Not sensitizing

Skin

Conclusion/Summary [Product]

: Not available.

Respiratory

Conclusion/Summary [Product]

: Not available.

Section 11. Toxicological information

Germ cell mutagenicity

Product/ingredient name

Phosphoric acid

Result

In vitro - Bacteria

Result: Negative

In vitro - Mammalian-Animal

Result: Negative

In vitro - Mammalian-Animal

Result: Negative

In vitro - Bacteria - Germ

Result: Negative

In vitro - Mammalian-Animal

Result: Negative

OECD 471 [Bacterial Reverse Mutation Test]

OECD 473 [In vitro Mammalian Chromosomal Aberration Test]

OECD 476 [In vitro Mammalian Cell Gene Mutation Test]

propan-1-ol

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
propan-1-ol	-	-	A4

Reproductive toxicity

Product/ingredient name

Phosphoric acid

Result

Rat - Oral

≥500 mg/kg - NOAEL

Fertility effects: Negative

Rat - Oral

≥410 mg/kg - NOAEL

Maternal toxicity: Negative

Developmental: Negative

OECD 422 [Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test]

OECD 414 [Prenatal Developmental Toxicity Study]

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

ethanol

Result

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

propan-1-ol

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

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Section 11. Toxicological information

Not available.

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes severe burns.
- Ingestion** : Corrosive to the digestive tract. Causes burns. 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
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	
Phosphoric acid	Chronic - Rat - Oral - NOAEL 250 mg/kg [90 days]	OECD 422 [Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test]

Section 11. Toxicological information

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)
ELECTROLYTE D2	3266.0	7088.7	N/A	N/A	N/A
Phosphoric acid	1250	2740	N/A	N/A	N/A
ethanol	7060	N/A	N/A	124.7	N/A
propan-1-ol	2200	4032	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name

Phosphoric acid

Result

Acute - EC50 - Fresh water

Daphnia

>100 mg/l [48 hours]

Acute - EC50 - Fresh water

Algae

>100 mg/l [72 hours]

Acute - NOEC - Fresh water

Algae

100 mg/l [72 hours]

EC50

Micro-organism

>1000 mg/l [3 hours]

Acute - EC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 22 mm; Weight:

0.14 g

12.8 g/l [96 hours]

Acute - EC50

Daphnia - *Daphnia magna*

12340 mg/l [48 hours]

Acute - EC50

Algae - *Chlorella vulgaris*

275 mg/l [72 hours]

Acute - LC50 - Marine water

Fish - Bleak - *Alburnus alburnus*

OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test]

OECD [Alga, Growth Inhibition Test]

OECD 201 [Alga, Growth Inhibition Test]

OECD 209 [Activated Sludge, Respiration Inhibition Test]

Effect: Behavior

Effect: Mortality

ethanol

propan-1-ol

Section 12. Ecological information

Size: 8 to 10 cm

3800 mg/l [96 hours]

Acute - EC50 - Fresh water

Effect: Population

Algae - Green algae - *Selenastrum sp.*

4480 mg/l [96 hours]

Acute - LC50 - Fresh water

Effect: Mortality

Crustaceans - Scud - *Gammarus*

pulex

1000 mg/l [48 hours]

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Product/ingredient name

Result

ethanol

84% [20 days] - Readily

propan-1-ol

75% [20 days] - Readily

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethanol	-	-	Readily
propan-1-ol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ethanol	-0.35	-	Low
propan-1-ol	0.2	-	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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or

Section 13. Disposal considerations

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

	TDG Classification	DOT Classification	IMDG	IATA
UN number	UN2920	UN2920	UN2920	UN2920
UN proper shipping name	 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Phosphoric acid, ethanol)	 Corrosive liquids, flammable, n.o.s. (Phosphoric acid, ethanol)	 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Phosphoric acid, ethanol)	 Corrosive liquid, flammable, n.o.s. (Phosphoric acid, ethanol)
Transport hazard class(es)	8 (3)  	8 (3)  	8 (3)  	8 (3)  
Packing group	II	II	II	II
Environmental hazards	No.	No.	No.	No.

Additional information

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.18-2.19 (Class 3).

Explosive Limit and Limited Quantity Index 1

Passenger Carrying Road or Rail Index 1

Special provisions 16

DOT Classification

: Reportable quantity 13740.6 lbs / 6238.2 kg [1484.7 gal / 5620 L]. 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: 202. Bulk: 243.

Quantity limitation Passenger aircraft/rail: 1 L. Cargo aircraft: 30 L.

Special provisions B2, IB2, T11, TP2, TP27

IMDG

: Emergency schedules F-E, S-C

Special provisions 274

IMDG Code Segregation group SGG1 - Acids

IATA

: Quantity limitation Passenger and Cargo Aircraft: 1 L. Packaging instructions: 851. Cargo Aircraft Only: 30 L. Packaging instructions: 855. Limited Quantities - Passenger Aircraft: 0.5 L. Packaging instructions: Y840.

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

Canadian lists

- Canadian NPRI** : The following components are listed: phosphorus (total); ethanol; n-propyl alcohol
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : All components are listed or exempted.

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.

Section 16. Other information

History

- Date of issue/Date of revision** : 20/03/2026
- Date of previous issue** : 13/01/2025
- Version** : 3
- Prepared by** : Sphera Solutions
- Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
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
UN = United Nations

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION - Category 1	On basis of test data
SERIOUS EYE DAMAGE - Category 1	On basis of test data
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
Health Hazards Not Otherwise Classified - Category 1	Calculation method

Date of issue/Date of revision : 20/03/2026 **Date of previous issue** : 13/01/2025 **Version** : 3 16/17



Section 16. Other information

References : HPR = Hazardous Products Regulations

▀ 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.

