

**Safety Data Sheet**

according to UK REACH Regulation

**FERTAN Rostkonverter**

Revision date: 18.11.2022

Product code:

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

FERTAN Rostkonverter

UFI: U190-A07R-T00F-92K2

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Rust converter, corrosion protection agent also suitable for corrosion prevention, Industrial and professional use.

**Uses advised against**

Any non-intended use.

**1.3. Details of the supplier of the safety data sheet**

Company name: FERTAN Korrosionsschutz Vertriebsgesellschaft GmbH  
Street: Industriepark AW-Hallen - Saar Lor Lux Strasse 14  
Place: D-66115 SAARBRUECKEN  
Telephone: +49 (0) 681 710 46  
e-mail: blang@fertan.com  
Contact person: Björn Lang  
Internet: www.fertan.com  
Responsible Department: Dr. Gans-Eichler e-mail: info@tge-consult.de  
Chemieberatung GmbH Tel.: +49(0)2534 6441185  
Otto-Hahn-Str. 36 www.tge-consult.de  
D-48161 Münster

**1.4. Emergency telephone number:**

Giftnotruf Berlin +49 (0) 30 30686 700 (24 h)

**Further Information**

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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Met. Corr. 1; H290  
Skin Irrit. 2; H315  
Eye Dam. 1; H318  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

Zinc nitrate  
Nitric acid

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

H290

May be corrosive to metals.

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H315	Causes skin irritation.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3. Other hazards**

The substances in the mixture (>0,1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.  
This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (GB CLP Regulation)	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	10 - < 12 %
	200-661-7	
	603-117-00-0	
	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
1569-02-4	1-ethoxypropan-2-ol	3 - < 5 %
	216-374-5	
	603-177-00-8	
	01-2119462792-32	
	Flam. Liq. 3, STOT SE 3; H226 H336	
7779-88-6	Zinc nitrate	3 - < 5 %
	231-943-8	
	Ox. Sol. 2, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 2; H272 H302 H315 H318 H335 H400 H411	
7664-38-2	phosphoric acid; orthophosphoric acid	< 1 %
	231-633-2	
	015-011-00-6	
	01-2119485924-24	
	Met. Corr. 1, Skin Corr. 1B; H290 H314	
7697-37-2	nitric acid	0.5 - < 1 %
	231-714-2	
	007-030-00-3	
	01-2119487297-23	
	Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A; H272 H290 H331 H314 EUH071	
13598-37-3	Zinc bis(dihydrogen phosphate)	0.5 - < 1 %
	237-067-2	
	Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 2; H302 H400 H411	

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	10 - < 12 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5840 mg/kg	

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1569-02-4	216-374-5	1-ethoxypropan-2-ol	3 - < 5 %
		inhalation: LC50 = (> 9,59 LD0) mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = >2000 mg/kg	
7779-88-6	231-943-8	Zinc nitrate	3 - < 5 %
		oral: ATE = 500 mg/kg	
7664-38-2	231-633-2	phosphoric acid; orthophosphoric acid	< 1 %
		oral: LD50 = 2600 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25	
7697-37-2	231-714-2	nitric acid	0.5 - < 1 %
		inhalation: ATE 2,65 mg/l (vapours); inhalation: LC50 = 2500 ppm (gases) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20	
13598-37-3	237-067-2	Zinc bis(dihydrogen phosphate)	0.5 - < 1 %
		oral: ATE = 500 mg/kg	

**Further Information**

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off contaminated clothing and wash it before reuse.

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

**After contact with skin**

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

**After ingestion**

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

**4.2. Most important symptoms and effects, both acute and delayed**

No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Fire-extinguishing activities according to surrounding.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

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### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Co-ordinate fire-fighting measures to the fire surroundings.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Safe handling: see section 7

#### For non-emergency personnel

Wear personal protection equipment (refer to section 8).

#### For emergency responders

No special measures are necessary.

### 6.2. Environmental precautions

Discharge into the environment must be avoided.

### 6.3. Methods and material for containment and cleaning up

#### For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

#### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Wear suitable protective clothing. See section 8.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work.

#### Further information on handling

General protection and hygiene measures: See section 8.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

#### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

#### Further information on storage conditions

Recommended storage temperature: 5-40°C

Protect against: frost. UV-radiation/sunlight. heat.

### 7.3. Specific end use(s)

See section 1.

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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	WEL
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL
57-55-6	Propane-1,2-diol, particulates	-	10		TWA (8 h)	WEL

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Worker DNEL, long-term		inhalation	systemic	500 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	89 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
57-55-6	propane-1,2-diol			
Worker DNEL, long-term		inhalation	systemic	168 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	10 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	213 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	50 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	85 mg/kg bw/day
Consumer DNEL, long-term		inhalation	local	10 mg/m <sup>3</sup>
1569-02-4	1-ethoxypropan-2-ol			
Worker DNEL, long-term		inhalation	systemic	106 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	500 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	74 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	127 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	systemic	300 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	44,3 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	14 mg/kg bw/day
7664-38-2	phosphoric acid; orthophosphoric acid			
Worker DNEL, long-term		inhalation	local	2,93 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,73 mg/m <sup>3</sup>
7697-37-2	nitric acid			
Worker DNEL, long-term		inhalation	local	2,6 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1,3 mg/m <sup>3</sup>

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Consumer DNEL, acute	inhalation	local	1,3 mg/m <sup>3</sup>
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### PNEC values

CAS No	Substance	Value
Environmental compartment		
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater		140,9 mg/l
Freshwater (intermittent releases)		140,9 mg/l
Marine water		140,9 mg/l
Freshwater sediment		552 mg/kg
Marine sediment		552 mg/kg
Secondary poisoning		160 mg/kg
Micro-organisms in sewage treatment plants (STP)		2251 mg/l
Soil		28 mg/kg
57-55-6	propane-1,2-diol	
Freshwater		260 mg/l
Freshwater (intermittent releases)		183 mg/l
Marine water		26 mg/l
Marine water (intermittent releases)		183 mg/l
Freshwater sediment		572 mg/kg
Marine sediment		57,2 mg/kg
Micro-organisms in sewage treatment plants (STP)		20000 mg/l
Soil		50 mg/kg
1569-02-4	1-ethoxypropan-2-ol	
Freshwater		10 mg/l
Freshwater (intermittent releases)		19 mg/l
Marine water		1 mg/l
Freshwater sediment		37,6 mg/kg
Marine sediment		3,76 mg/kg
Secondary poisoning		142 mg/kg
Micro-organisms in sewage treatment plants (STP)		1250 mg/l
Soil		1,97 mg/kg

### 8.2. Exposure controls



#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). BS/EN 166

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**Hand protection**

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  4 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN ISO 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

**Environmental exposure controls**

Do not allow uncontrolled discharge of product into the environment.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	dark brown/black
Odour:	characteristic
Odour threshold:	not determined

**Changes in the physical state**

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined

**Flammability**

Solid/liquid:	not determined
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**Explosive properties**

none

Lower explosion limits:	not determined
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Upper explosion limits:	not determined
Auto-ignition temperature:	not determined
<b>Self-ignition temperature</b>	
Solid:	not relevant
Gas:	not relevant
Decomposition temperature:	not determined
pH-Value (at 20 °C):	1,4 - 2
Viscosity / dynamic:	not determined
Viscosity / kinematic: (at 20 °C)	1 mm <sup>2</sup> /s
Flow time:	not determined
Water solubility:	soluble
<b>Solubility in other solvents</b>	
not determined	
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	SECTION 12: Ecological information
Dispersion stability:	not relevant
Vapour pressure:	not determined
Density:	not determined
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not relevant

#### 9.2. Other information

##### **Information with regard to physical hazard classes**

Sustaining combustion:	Not sustaining combustion
Oxidizing properties	
none	

##### **Other safety characteristics**

Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Evaporation rate:	not determined

##### **Further Information**

No information available.

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No information available.

#### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

#### 10.3. Possibility of hazardous reactions

Refer to chapter 10.5.

#### 10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.



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**10.5. Incompatible materials**

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

**10.6. Hazardous decomposition products**

Does not decompose when used for intended uses.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Toxicokinetics, metabolism and distribution**

No data available.

**Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5840 mg/kg	Rat	ECHA dossier	
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA dossier	
1569-02-4	1-ethoxypropan-2-ol				
	oral	LD50 >2000 mg/kg	Rat.	ECHA Dossier	
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1985)	EU Method B.3
	inhalation (4 h) vapour	LC50 (> 9,59 LD0) mg/l	Rat	Study report (1984)	OECD Guideline 403
7779-88-6	Zinc nitrate				
	oral	ATE 500 mg/kg			
7664-38-2	phosphoric acid; orthophosphoric acid				
	oral	LD50 2600 mg/kg	Rat	ECHA Dossier	
7697-37-2	nitric acid				
	inhalation vapour	ATE 2,65 mg/l			
	inhalation (4 h) gas	LC50 2500 ppm	Rat	ECHA Dossier	
13598-37-3	Zinc bis(dihydrogen phosphate)				
	oral	ATE 500 mg/kg			

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye damage.

On basis of test data.:

Skin corrosion/irritation: not corrosive (OECD 431)

Irritant effect on the skin: Irritant (OECD 439)

Eye damage/irritation: Causes serious eye damage. (HET-CAM)

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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Based on available data, the classification criteria are not met.

propan-2-ol; isopropyl alcohol; isopropanol:

OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative., AllgK267153: ECHA Dossier; OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) = negative., Literature information: ECHA Dossier; No indications of human carcinogenicity exist., Literature information: ECHA Dossier; Reproductive toxicity: Method: OECD Guideline 415 (One-Generation Reproduction Toxicity Study); Species: Rat ; Result: NOAEL = 853 mg/kg; Literature information: ECHA Dossier; Developmental toxicity/teratogenicity: Method: (oral. ) OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit ; Result: NOAEL = 480 mg/kg; Literature information: ECHA Dossier

phosphoric acid; orthophosphoric acid:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) Result: negative.

Reproductive toxicity: Method: OECD 422. Species: Rat. Exposure duration: 52 d. Result : NOAEL >=500 mg/kg bw/day Literature information : ECHA Dossier

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

propan-2-ol; isopropyl alcohol; isopropanol:

Chronic inhalative toxicity (Rat): NOAEC = 5000 ppm (OECD 451), Literature information: ECHA Dossier

phosphoric acid; orthophosphoric acid:

Subchronic oral toxicity: Method: OECD 422. Species: Rat. Exposure duration: 54 d.

Result : NOAEL = 250 mg/Kg Literature information : ECHA Dossier

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Specific effects in experiment on an animal

No data available.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other information

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 10000 mg/l	96 h	Pimephales promelas	ECHA dossier	OECD 203
	Acute algae toxicity	ErC50 1800 mg/l		Scenedesmus quadricauda	ECHA dossier	
	Acute crustacea toxicity	EC50 >10000 mg/l	48 h	Daphnia magna (24h)	ECHA dossier	OECD 202
1569-02-4	1-ethoxypropan-2-ol					
	Acute fish toxicity	LC50 > 4600 - < 10000 mg/l	96 h	Leuciscus idus	Study report (1989)	other: DIN 38 412, part L15
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	REACH Registration Dossier	OECD Guideline 201

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	Acute crustacea toxicity	EC50 25900 mg/l	21100 -	48 h	Daphnia magna	Study report (1981)	other: Environmental Sciences Research T
	Fish toxicity	NOEC mg/l	> 260	21 d	Oncorhynchus mykiss	Study report (1993)	OECD Guideline 204
	Algae toxicity	NOEC mg/l	>100	3 d	Desmodesmus subspicatus	ECHA-Dossier	OECD 201
	Crustacea toxicity	NOEC mg/l	> 180	21 d	Daphnia magna	REACH Registration Dossier	other: "Daphnia sp., Acute Immobilisatio
	Acute bacteria toxicity	(EC50 mg/l)	>4600		Pseudomonas putida	ECHA Dossier	
7664-38-2	phosphoric acid; orthophosphoric acid						
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Desmodesmus subspicatus	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna	ECHA Dossier	
7697-37-2	nitric acid						
	Acute crustacea toxicity	EC50	2.5 mg/l	48 h	Ceriodaphnia spec	ECHA Dossier	

**12.2. Persistence and degradability**

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	EU Method C.5/ EU Method C.6	53%	5	ECHA dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
1569-02-4	1-ethoxypropan-2-ol			
	OECD Guideline 301 F	78	28	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
	OECD Guideline 301 D	68	28	ECHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

**12.3. Bioaccumulative potential****Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
1569-02-4	1-ethoxypropan-2-ol	1,46
7697-37-2	nitric acid	-0,21

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

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**12.7. Other adverse effects**

No data available.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

110198 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

110198 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, phosphoric acid; orthophosphoric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8



Classification code:	C1
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

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#### Inland waterways transport (ADN)

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, phosphoric acid; orthophosphoric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
	
Classification code:	C1
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

#### Marine transport (IMDG)

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, phosphoric acid; orthophosphoric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
	
Marine pollutant:	NO
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid, phosphoric acid; orthophosphoric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
	
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Refer to section 6 - 8

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**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2010/75/EU (VOC): 25,99 %

2004/42/EC (VOC): 26,19 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**Additional information**

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The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

UK REACH Appendix XVII, No (mixture): 3

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

propan-2-ol; isopropyl alcohol; isopropanol

phosphoric acid; orthophosphoric acid

nitric acid

**SECTION 16: Other information****Changes**

Rev. : 1,0 - Initial release 08.11.2017

Rev. : 2,0 - 14.11.2017, Changes in chapter: 1-16.

Rev. : 3,0 - 04.05.2018, Changes in chapter: 2-16.

Rev. : 4,0 - 30.03.2021, Changes in chapter: 2-16.

Rev. : 4,1 - 20.04.2021, Changes in chapter: 1,12.

Rev. : 4,2 - 30.04.2021, Changes in chapter: 1,2,11,16.

Rev. : 4,3 - 05.08.2021, Changes in chapter: 2,11,16.

Rev. : 4,4 - 18.11.2022, Changes in chapter: 2,16.

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

AGW: Arbeitsplatzgrenzwert

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO: International Civil Aviation Organization  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
 h: hour  
 LOAEL: Lowest observed adverse effect level  
 LOAEC: Lowest observed adverse effect concentration  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 NOAEL: No observed adverse effect level  
 NOAEC: No observed adverse effect concentration  
 NLP: No-Longer Polymers  
 N/A: not applicable  
 OECD: Organisation for Economic Co-operation and Development  
 PNEC: predicted no effect concentration  
 PBT: Persistent bioaccumulative toxic  
 RID: Regulation Concerning the International Transport of Dangerous Goods by Rail  
 REACH: Registration, Evaluation, Authorisation of Chemicals  
 SVHC: substance of very high concern  
 TRGS: Technische Regeln für Gefahrstoffe  
 UN: United Nations  
 VOC: Volatile Organic Compounds

### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Irrit. 2; H315	
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 3; H412	Calculation method

### Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.  
 H226 Flammable liquid and vapour.  
 H272 May intensify fire; oxidiser.  
 H290 May be corrosive to metals.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.  
 H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 EUH071 Corrosive to the respiratory tract.

### Further Information

Classification according to GHS [UK CLP] - Classification procedure:  
 Health hazards: Calculation method.  
 Environmental hazards: Calculation method.  
 Physical hazards: On basis of test data and / or calculated and / or estimated.

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*