

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification of the mixture in accordance with Regulation (EC) No 1272/2008 The mixture is classified as dangerous.

Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects Highly flammable liquid and vapour. Most serious adverse effects on human health and the environment Causes serious eye irritation. May cause drowsiness or dizziness.

2.2. Label elements



Danger

Hazardous substances propan-2-ol Hazard statements

Highly flammable liquid and vapour.

H225



according to Regulation (EC) No 1907/2006 (REACH) as amended

FINE CLEANER (0,5 L) Creation date 16th December 2022 3.0 Revision date Version H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. **Precautionary statements** 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. P280 Wear protective gloves/eye protection. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container to in accordance with national regulations.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

Mixtures 3.2.

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 67-63-0 EC: 200-661-7 Registration number: 01-2119457558-25	propan-2-ol	75-<100	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
CAS: 5593-70-4 EC: 227-006-8 Registration number: 01-2119967423-33	titanium-tetrabutanolate	1,0-<2,5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. **Description of first aid measures**

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

If on skin

Generally the product does not irritate the skin.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.



according to Regulation (EC) No 1907/2006 (REACH) as amended

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4.2.	Most important symptoms and effect	cts, both acute and delayed		
	If inhaled			
	May cause drowsiness or dizziness.			
	If on skin			
	not available			
	If in eyes			
	Causes serious eye irritation.			

If swallowed

not available

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

not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Alcohol-resistant foam, carbon dioxide, powder, water mist. Unsuitable extinguishing media Water - full jet.

5.2. Special hazards arising from the substance or mixture not available

5.3. Advice for firefighters Use a self-contained breathing apparatus and full-body protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Provide sufficient ventilation. Highly flammable liquid and vapour. Remove all ignition sources. Use personal protective equipment for work. Keep unprotected persons away.

6.2. Environmental precautions

Do not allow product to reach sewage system or any water course. Prevent seepage into sewage system, workpits and cellars. Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Provide sufficient ventilation. Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. Do not flush with water or aqueous cleansing agents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Do not spray on an open flame or other ignition source. Keep away from sources of heating, ignition and direct sunlight. No smoking. Take precautionary measures against static discharge.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Do not expose to sunlight. Keep cool.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.



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DNEL

propan-2-ol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	26 mg/kg bw/day	Systemic chronic effects		
Consumers	Dermal	319 mg/kg bw/day	Systemic chronic effects		
Workers	Dermal	888 mg/kg bw/day	Systemic chronic effects		
Consumers	Inhalation	89 mg/m ³	Systemic chronic effects		
Workers	Inhalation	500 mg/m ³	Systemic chronic effects		
titanium-tetrabuta	nolate				
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	3.75 mg/kg bw/day	Systemic chronic effects		
Consumers	Dermal	37.5 mg/kg bw/day	Systemic chronic effects		
Consumers	Inhalation	38 mg/m ³	Systemic chronic effects		
Workers	Inhalation	127 mg/m ³	Systemic chronic effects		

PNEC

titanium-tetrabutanolate

Route of exposure	Value	Value determination	Source
Freshwater environment	0.08 mg/l		
Seawater	0.008 mg/l		
Freshwater sediment	0.0687 mg/kg of dry substance of sediment		
Sea sediments	0.0069 mg/kg of dry substance of sediment		
Water (intermittent release)	2.25 mg/l		
Soil (agricultural)	0.0168 µg/kg		

8.2. Exposure controls

Do not store together with food, drink and animal feed. Follow the usual measures intended for health protection at work and especially for good ventilation. Remove contaminated clothes. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles. EN166 - Personal Eye Protection Standard.

Skin protection

Hand protection: Protective gloves resistant to the product. The final selection of the glove material must be carried out on the basis of penetration times, permeation rates and degradation. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.5 mm. Penetration time of glove material: > 480 min. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter A/P2.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties



according to Regulation (EC) No 1907/2006 (REACH) as amended

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	Physical state	liquid	
	Colour	colourless	
	Odour	containing alcohol	
	Melting point/freezing point	-89,5 °C	
	Boiling point or initial boiling point and boiling rar	ge 82 °C	
	Flammability	Highly flammable liquid and vapour.	
	Lower and upper explosion limit		
	bottom	2 %	
	upper	12 %	
	Flash point	13 °C	
	Auto-ignition temperature	data not available	
	Decomposition temperature	data not available	
	рН	non-polar/aprotic	
	Kinematic viscosity	data not available	
	Viscosity	2,43 mPas	
	Solubility in water	1 g/l	
	Solubility in fats	data not available	
	Partition coefficient n-octanol/water (log value)	data not available	
	Vapour pressure	43 hPa at 20 °C	
	Density and/or relative density		
	Density	0,79 g/cm³ at 20 °C	
	Form	liquid	
	data not available		
9.2.	Other information		
	Evaporation rate	data not available	
	Ignition temperature	425 °C	
	Explosive properties	The product does not have explosive prop explosive when blended with air.	erties but can b
	Content of organic solvents (VOC)	100,0 %	
	Solid content (dry matter)	0,0 % volume	
	Max. VOC content in the product in its ready to u condition	^{5e} 790,0 g/l	
	Product is not selfigniting.		

SECTION 10: Stability and reactivity

10.1.	Reactivity not available
10.2.	Chemical stability The product is stable under normal conditions
10.3.	Possibility of hazardous reactions
10.4.	Unknown. Conditions to avoid
	not available
10.5.	Incompatible materials not available
10.6.	Hazardous decomposition products Unknown.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 No toxicological data is available for the mixture.



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Acute toxicity

Based on available data the classification criteria are not met.

propan-2-ol

Parameter	Value	Exposure time	Species	Sex
LD 50	5840 mg/kg		Rat	
LD 50	13900 mg/kg		Rabbit	
LC ⁵⁰	>25 mg/l	4 hour	Rat	
	LD50 LD50	LDso 5840 mg/kg LDso 13900 mg/kg	LDso 5840 mg/kg 13900 mg/kg	LDso 5840 mg/kg Rat LDso 13900 mg/kg Rabbit

titanium-tetrabutanolate

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD 50	>2000 mg/kg		Rat	
Dermal	LD50	5300 mg/kg		Rabbit	
Inhalation	LC50	20100 mg/l	4 hour	Rat	
Oral	NOAEL	125 mg/kg/24hour		Rat	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

propan-2-ol

Parameter	Value	Exposure time	Species	Environment
LC50	9714 mg/l	24 hour	Invertebrates (Daphnia magna)	
LC50	9640 mg/l	96 hour	Fishes (Pimephales promelas)	
titanium-tetrabutano	late			
Parameter	Value	Exposure time	Species	Environment
LC50	1825 mg/l	96 hour	Fishes	
EC50	1300 mg/l	48 hour	Daphnia	
EC50	225 mg/l	96 hour	Algae	



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Chronic toxicity

propan-2-or				
Parameter	Value	Exposure time	Species	Environment
LOEC	1000 mg/l	8 day	Algae	
titanium-tetrabutanol	titanium-tetrabutanolate			
Parameter	Value	Exposure time	Species	Environment
NOEC	4 mg/l	21 day	Daphnia	

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Additional ecological information:

General notes: Water hazard class 1 (german Regulation, self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

- UN 1993
- **14.2.** UN proper shipping name FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))
- 14.3.Transport hazard class(es)3Flammable liquids
- 14.4. Packing group
 - II substances presenting medium danger
- 14.5. Environmental hazards
 - not relevant
- 14.6. Special precautions for user
 - Reference in the Sections 4 to 8.
- **14.7.** Maritime transport in bulk according to IMO instruments not relevant

REECH®	SAFET	Y DATA SHEET		
QUALITY FOR PROFESSIONALS	according to Regulation (I	EC) No 1907/2006 (REACH)	as amended	
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Creation date	16th December 2022			
Revision date		Version	3.0	
Additional inform IATA: UN 1090 ACE Stowage category:	TONE			
Hazard identifi	cation No.	33		
UN number		1993		
Safety signs		3		
Road transport -	ADR			
Limited quantit	ties	1 L		
Excepted quan		E2		
Tunnel restrict	ion code	(D/E)		
Railway transport	t - RID			
Marine transport	- IMDG			
EmS (emerger	ncy plan)	F-E, S-E		

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

not available

More information

Directive 2012/18/EU of the European parliament and of the Council - ANNEX I - Hazard categories: P5c FLAMMABLE LIQUIDS.

Qualifying quantity (tonnes) of dangerous substances for the application - of lower-tier requirements: 5000. Qualifying quantity (tonnes) of dangerous substances for the application of - upper-tier requirements: 50000.

SECTION 16: Other information

A list of standard risk phras	es used in the safety data sheet
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
Guidelines for safe handling	used in the safety data sheet
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.
P280	Wear protective gloves/eye protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



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	Store in a well ventilated place. Keen container tightly closed
P403+P233 P405	Store in a well-ventilated place. Keep container tightly closed.
P403 P501	Store locked up.
	Dispose of contents/container to in accordance with national regulations.
-	formation about human health protection
as per the Section 1.	t be - unless specifically approved by the manufacturer/importer - used for purposes other t The user is responsible for adherence to all related health protection regulations.
•	ns and acronyms used in the safety data sheet
ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
ES	Identification code for each substance listed in EINECS
EU	European Union
EuPCS	European Product Categorisation System
ΙΑΤΑ	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution from Ships
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure
Training guidelines Inform the personnel	: about the recommended ways of use, mandatory protective equipment, first aid and prohib



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Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 3.0 replaces the SDS version from 17 March 2020. Changes were made in sections 2, 11, 12, 13, 15 and 16.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.