

according to Regulation (EC) No 1907/2006

TFE

Revision date: 21.02.2023

Product code: SOL-015

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

<u>1.1. Product identifier</u> TFE		
Further trade names 2,2,2-Trifluoroethan-1-ol 2,2,2-Trifluorethanol Trifluorethanol		
Substance name:	2,2,2-Trifluoroethan-1-ol	
Abbreviation:	TFE	
REACH Registration Number: CAS No: EC No:	01-2119488763-23-XXXX 75-89-8 200-913-6	
1.2. Relevant identified uses of the su	ubstance or mixture and uses advised aga	inst
Use of the substance/mixture		
Laboratory chemical, Manufactu	ire of the substance	
Uses advised against		
Do not use for private purposes	(household).	
Restrictions on use: Pharmaceu		
1.3. Details of the supplier of the safe	ty data sheet	
Company name:	Iris Biotech GmbH	
Street:	Adalbert-Zoellner-Straße 1	
Place:	D-95615 Marktredwitz, Germany	
Post-office box:	568	
	D-95605 Marktredwitz, Germany	
Telephone:	+49 9231 97121 0	Telefax: +49 9231 97121 99
e-mail:	info@iris-biotech.de	
Contact person:	Compliance Department	Telephone: +49 9231 97121 0
e-mail:	sds@iris-biotech.de	
Internet:	www.iris-biotech.de	
Responsible Department:	Only available during office hours.	
1.4. Emergency telephone	+49 (0)89 19240 (POISON CENTER Mun	ich: 24 h)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 3; H226 Repr. 1A; H360F Acute Tox. 3; H331 Acute Tox. 3; H301 Eye Dam. 1; H318 STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Danger



according to Regulation (EC) No 1907/2006



Revision date: 21.02.2023 Product code: SOL-015 Page 2 of 13 **Pictograms:** Hazard statements H226 Flammable liquid and vapour. H301+H331 Toxic if swallowed or if inhaled. H318 Causes serious eye damage. H360F May damage fertility. H373 May cause damage to organs through prolonged or repeated exposure. Precautionary statements

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
P308+P313	IF exposed or concerned: Get medical advice/attention.

Special labelling of certain mixtures

Restricted to professional users.

Additional advice on labelling

Warning - substance not yet tested completely.

2.3. Other hazards

In use may form flammable/explosive vapour-air mixture. PBT: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization 2,2,2-Trifluoroethan-1-ol	
Sum formula:	CF3CH2OH
Molecular weight:	100,04 g/mol

Hazardous components

CAS No	Chemical name					
	EC No Index No REACH No					
	Classification (Regulation (EC) No 1272/2008)					
75-89-8	2,2,2-Trifluoroethan-1-ol					
	200-913-6 01-2119488763-23-XXXX					
	Flam. Liq. 3, Repr. 1A, Acute Tox. 3, Acute Tox. 3, Eye Dam. 1, STOT RE 2; H226 H360F H331 H301 H318 H373					

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

S	pecific	Conc.	Limits.	M -factors	and ATE	
-	0001110	00110.	,	in laotoro		

CAS No	EC No	C No Chemical name			
	Specific Conc. Limits, M-factors and ATE				
75-89-8	200-913-6	2,2,2-Trifluoroethan-1-ol	<= 100 % %		
		0 = 3,25 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: mg/kg; oral: LD50 = 153 mg/kg			



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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately. Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary. After contact with skin, wash immediately with plenty of water and soap. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Rinse mouth thoroughly with water.

Never give anything by mouth to an unconscious person or a person with cramps.

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

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder. Suitable extinguishing media: Water spray. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO2). Sand.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO). Fluorhydric acid. (HF).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Use water spray jet to protect personnel and to cool endangered containers.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Usual measures for fire prevention.

SECTION 6: Accidental release measures



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6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Use appropriate respiratory protection.

Remove all sources of ignition. Remove persons to safety. Accumulation in closed or lower lying rooms signifies hightened risk of fire or explosion.

Provide adequate ventilation.

In case of fire: Evacuate area.

For non-emergency personnel

Cover drains.

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

For emergency responders

Cover drains.

Stop and contain spill/release if it can be done safely.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

Do not allow to enter into soil/subsoil.

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Stop and contain spill/release if it can be done safely.

For cleaning up

Universal binder/ Binder Treat the recovered material as prescribed in the section on waste disposal.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Take up mechanically, placing in appropriate containers for disposal. Avoid dust formation. Clear contaminated areas thoroughly.

Use only antistatically equipped (spark-free) tools.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid dust formation. Do not breathe dust. Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothes.

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use extractor hood (laboratory).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Usual measures for fire prevention.



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Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed in a cool, well-ventilated place.

Handle and store contents under inert gas. Protect from moisture. Keep under argon.

storage temperature: at room temperature

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

Further information on storage conditions

Keep/Store only in original container.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Name of agent						
DNEL type		Exposure route	Effect	Value			
75-89-8 2,2,2-Trifluoroethan-1-ol							
Worker DNEL,	long-term	inhalation	systemic	0,1 mg/m³			
Worker DNEL, long-term		dermal		0,06 mg/kg bw/day			
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m³			

PNEC values

CAS No	Name of agent					
Environment	Environmental compartment Value					
75-89-8	2,2,2-Trifluoroethan-1-ol					
Freshwater		0,119 mg/l				
Freshwater (intermittent releases) 1,19 mg/l						
Marine water 0,0119 mg/l						
Freshwater sediment 0,486 mg/k						
Marine sediment		0,0486 mg/kg				
Micro-organi	100 mg/l					
Soil	0,0273 mg/kg					

Additional advice on limit values

No data available

8.2. Exposure controls



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Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles. Wear eye/face protection. Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Safety shower and eye bath.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Use of protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

Flammable liquid and vapour.

Environmental exposure controls

Discharge into the environment must be avoided. Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	like: Alcohol.
Odour threshold:	not determined
Melting point/freezing point: Boiling point or initial boiling point and boiling range: Flammability: Lower explosion limits:	

Test method

-44 °C 77-80 °C

not determined 5,5 vol. %



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Revision date: 21.02.2023 Product code: SOL-015 Page 7 of 13 Upper explosion limits: 42 vol. % Flash point: 29 °C Auto-ignition temperature: 480 °C Decomposition temperature: not determined pH-Value: 5.0 - 7.5 Viscosity / kinematic: not determined Water solubility: completely miscible (at 20 °C) Soluble in: Alcohol, Ether, Chloroform Dissolution rate: not determined Partition coefficient n-octanol/water: log Pow: 0.41 Dispersion stability: not determined Vapour pressure: 93 hPa (at 25 °C) 1.373 g/cm ³ Density (at 25 °C): 1.373 g/cm ³ Relative density: not applicable Buik density: not applicable Buik density: not applicable 92.Other information Sustaining combustion Oxidizing properties The product is not: Explosive. Sustaining combustion: Sustaining combustion Oxidizing properties The product is not: oxidising. The product is not oxidising. 100,00 % Solid content: not determined Solvent content: 100,00 % Solid content: not determined <t< th=""><th></th><th>TFE</th><th></th></t<>		TFE	
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No data available	Solvent content:	100,00 %	
	Solid content:	not determined	
Viscosity / dynamic: not determined		No data available	
	Viscosity / dynamic:	not determined	
Flow time: not determined	Flow time:	not determined	

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour. Forms explosive mixtures with air at elevated temperatures.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. Protect from moisture. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep away from sources of ignition - No smoking.

10.5. Incompatible materials

Oxidizing agents, strong.



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Strong acid

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon dioxide (CO2). Carbon monoxide (CO), Hydrogen fluoride (HF)

Further information

In case of fire: See chapter 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

Toxic if swallowed. Toxic if inhaled.

CAS No	Chemical name								
	Exposure route	Dose		Species	Source	Method			
75-89-8	2,2,2-Trifluoroethan-1-ol								
	oral	LD50 mg/kg	153	Rat	Study report (1998)	OECD Guideline 401			
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2010)	OECD Guideline 402			
	inhalation (4 h) vapour	LC50	3,25 mg/l	Rat		OECD Guideline 403			
	inhalation dust/mist	ATE	0,5 mg/l						

Irritation and corrosivity

Causes serious eye damage. (On basis of test data) Skin corrosion/irritation: Based on available data, the classification criteria are not met. Skin corrosion/irritation: Skin - rabbit. Result: No skin irritation - 4 h OECD 404

Serious eye damage/eye irritation: eyes - Rabbit. Result: Serious eye damage/eye irritation - Danger of very serious irreversible effects. OECD 405

Sensitising effects

Based on available data, the classification criteria are not met. Skin sensitisation: Method: OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) Species: Mouse Result: negative. Literature: ECHA Dossier

Carcinogenic/mutagenic/toxic effects for reproduction



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May damage fertility. (2,2,2-Trifluoroethan-1-ol)

Germ cell mutagenicity: Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Germ cell mutagenicity: Ames test negative. Salmonella typhimurium OECD 471 (Ames test)

Mutagenicity (mammalian cell test): Chromosomal aberrations mammalian cells Chinese hamster ovary cells OECD 473 Result: negative

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (On basis of test data)

Aspiration hazard

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

Specific effects in experiment on an animal

No data available

Practical experience No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

Ardor, Coughing. shortage of breath. Headache. Nausea. vomiting. Pulmonary oedema. Symptoms may be delayed.

Further information

This substance is classified as hazardous according to Regulation (EC) No 1272 (2008). Special hazards arising from the substance or mixture. RTECS: KM5250000

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met. The product is not: Ecotoxic.



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CAS No	Chemical name								
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
75-89-8	2,2,2-Trifluoroethan-1-ol	2,2,2-Trifluoroethan-1-ol							
	Acute fish toxicity	LC50	119 mg/l	96 h	Pimephales promelas	REACh Registration Dossier	OECD Guideline 203		
	Acute algae toxicity	ErC50 mg/l	> 974		Raphidocelis subcapitata	REACh Registration Dossier	OECD Guideline 201		
	Acute bacteria toxicity	(EC50 mg/l)	> 1000		activated sludge of a predominantly domestic sewag	Study report (2010)	OECD Guideline 209		

12.2. Persistence and degradability

CAS No	Chemical name			
	Method Value d Source		Source	
	Evaluation			
75-89-8	2,2,2-Trifluoroethan-1-ol			
	Biodegradability: aerobic.	0 %	28	OECD 310
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-89-8	2,2,2-Trifluoroethan-1-ol	< 0,3

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Warning - substance not yet tested completely.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. Handle contaminated packages in the same way as the substance itself.

Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

UN 1986

SECTION 14: Transport information

Land transport (ADR/RID)

14.1.	UN	number	or	ID	number:

Revision No: 4,0 - Replaces version: 3,0



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Biotech	TFE	
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14.2. UN proper shipping name:	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (2,2,2-Trifluoroethan-1-ol)	
14.3. Transport hazard class(es):	3	
14.4. Packing group:	III	
Hazard label:	3+6.1	
Classification code:	FT1 FT1	
Special Provisions:	274	
Limited quantity:	5 L	
Excepted quantity:	E1	
Transport category:	3	
Hazard No:	36	
Tunnel restriction code:	D/E	
Inland waterways transport (ADN)		
<u>14.1. UN number or ID number:</u>	UN 1986	
14.2. UN proper shipping name:	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (2,2,2-Trifluorethanol)	
<u>14.3. Transport hazard class(es):</u>	3	
14.4. Packing group:	III	
Hazard label:	3+6.1	
Classification code:	FT1	
Special Provisions:	274 802	
Limited quantity:	5 L	
Excepted quantity:	E1	
Marine transport (IMDG)		
<u>14.1. UN number or ID number:</u>	UN 1986	
14.2. UN proper shipping name:	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (2,2,2-Trifluorethanol)	
14.3. Transport hazard class(es):	3	
14.4. Packing group:	III	
Hazard label:	3+6.1	
Special Provisions:	223 274	
Limited quantity:	5 L	
Excepted quantity:	E1	
EmS:	F-E, S-D	
Air transport (ICAO-TI/IATA-DGR)		
14.1. UN number or ID number:		
14.2. UN proper shipping name:	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (2,2,2-Trifluorethanol)	
14.3. Transport hazard class(es):	3	
14.4. Packing group:		
Hazard label:	3+6.1	
Special Provisions:	A3	
·		



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Limited quantity Passenger:	2 L		
Passenger LQ:	Y343		
Excepted quantity:	E1		
IATA-packing instructions - Passenger:		355	
IATA-max. quantity - Passenger:		60 L	
IATA-packing instructions - Cargo:		366	
IATA-max. quantity - Cargo:		220 L	
14.5. Environmental hazards			
ENVIRONMENTALLY HAZARDOUS:	No		
14.6. Special precautions for user			
Warning: Combustible liquid. Acute Toxicity.			
14.7. Maritime transport in bulk according to IMO instruments			
not applicable			
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 40	
2010/75/EU (VOC):	100 % (1373 g/l)
2004/42/EC (VOC):	100 % (1373 g/l)
Information according to 2012/18/EU (SEVESO III):	H2 ACUTE TOXIC
Additional information:	P5c
National regulatory information	
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

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) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50% CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals



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TFE Product code: SOL-015 Page 13 of 13 Revision date: 21.02.2023 GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals **UN: United Nations DNEL: Derived No Effect Level** DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative RID: Regulations concerning the international carriage of dangerous goods by rail ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures) EmS: Emergency Schedules MFAG: Medical First Aid Guide ICAO: International Civil Aviation Organization MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds SVHC: Substance of Very High Concern For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H301+H331	Toxic if swallowed or if inhaled.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.