SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/878830

FRED

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

1.1. Product identifier

Product name **:FRED**
Registration number REACH **:**Not applicable (mixture)
Product type REACH **:**Mixture

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

1.2.1 Relevant identified uses

Fire stop coating

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Intelligent Membranes Ltd.
Clopton Farm, Lower Road
Croydon, SG8 0EF, United Kingdom
☎ +441223208174
info@intelligentmembranes.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English) : +441223208174

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008
Supplemental information
EUH208Contains: reaction mass of 5-chloro-2H-isothiazol-3-one and 2-methyl-2H-isothiazontol-3-one (3:1) 2-methylisothiazol-3 (2H)-one.
EUH210Safety data sheet available on request.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

titanium dioxide 13463-67-7C<10% (2)
01-2119489379-17 236-675-5
melamine 108-78-1C<15% (2)
203-615-4
pentaerythritol 115-77-5C<10% (2)
01-2119473985-20 204-104-9
ethanediol 107-21-1 C<5%Acute Tox. 4; H302 (1)(2)(6)(10)
01-2119456816-28 203-473-3 STOT RE 2; H373
mineral fibers conform nota Q 926-099-9C<5% (2)
(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:
Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call emergency services. Treat symptoms starting with the most life threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:
Not applicable.

After skin contact:
Not applicable.

After eye contact:
Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralising agents without medical advice. Take victim to an ophthalmologist if irritation persists

After ingestion:
Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult poison center.

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

4.2.1 Acute symptoms
After inhalation:
No effects known.
After skin contact:
No effects known.
After eye contact:
No effects known.
After ingestion:
No effects known.
4.2.2 Delayed symptoms
No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:
Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.
Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.
5.1.2 Unsuitable extinguishing media:
Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.
Major fire: Water; risk of puddle expansion.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide) and formation on of small quantities of sulphur oxides.

5.3. Advice for firefighters

5.3.1 Instructions:
Dilute toxic gases with water spray. Take account of toxic/corrosive precipita on water.
5.3.2 Special protective equipment for fire-fighters:
Gloves (EN 374). Protec ve clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.
6.1.1 Protective equipment for non-emergency personnel
See heading 8.2
6.1.2 Protective equipment for emergency responders
Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).
Suitable protective clothing
See heading 8.2

6.2. Environmental precautions

Contain released product, pump into suitable containers. Plug the leak, cut off the supply.

6.3. Methods and material for containment and cleaning up

Solid spill: cover with absorbent material. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are a relevant exposure scenarios that correspond to your idenfied use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe strict hygiene.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:
Storage temperature: 5 °C - 25 °C. Meet the legal requirements.

7.2.2 Keep away from:
Heat sources.

7.2.3 Suitable packaging material:
Plastics.

7.2.4 Non suitable packaging material:
Metal.

7.3. Specific end use(s)

If applicable and available,exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure
a) Occupational exposure limit values
If limit values are applicable and available these will be listed below.

EU

Ethylene glycol

Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm
Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	52 mg/m³
Short time value (Indicative occupational exposure limit value)	40 ppm
Short time value (Indicative occupational exposure limit value)	104 mg/m³

Belgium

Ethylèneglycol (en aérosol)

Time-weighted average exposure limit 8 h 20 ppm (M)
Time-weighted average exposure limit 8 h 52 mg/m³ (M)
Short time value 40 ppm (M)
Short time value 104 mg/m³ (M)
Fibres (inorganic synthetic crystalline fibres) Time-weighted average exposure limit 8 h 500000 fibres/m³ (F)
Fibres (inorganic synthetic amorphous fibres) Time-weighted average exposure limit 8 h 1000000 fibres/m³ (F) Particles not otherwise classified (fr action alveolar)Time-weighted average exposure limit 8 h 3 mg/m³ Particles not otherwise classified (inhalable fraction)Time-weighted average exposure limit 8 h 10 mg/m³ Pentaerythritol Time-weighted average exposure limit 8 h 10 mg/m³ Titanium (dioxide de) Time-weighted average exposure limit 8 h 10 mg/m³ The word
“M” indicates that when exposure exceeds the limit value, irritation occurs or a danger of acute poisoning exists.
The working process must be designed in such a way that the exposure never exceeds the limit value.
When taking measurements, the sampling period should be as short as possible in order to be able to perform reliable measurements.
The result of the measurements is calculated according to the sampling period.
“F” means that exposure to the agent in question is in the form of fibres. By fibre we mean any particle of a length greater than 5µm, with a diameter less than 3 µm and whose length/diameter ratio is greater than 3. By derogation from the concentration units mentioned (mg/m³) the fibre concentration is expressed in number of fibres per cubic meter

The Netherlands

Ethaan-1,2-diol (damp)
Ethaan-1,2-diol (druppels)

Time-weighted average exposure limit 8 h (Public occupational exposure limit value) 20 ppm
Time-weighted average exposure limit 8 h (Public occupational exposure limit value) 52 mg/m³
Short time value (Public occupational exposure limit value) 40 ppm
Short time value (Public occupational exposure limit value) 104 mg/m³
Time-weighted average exposure limit 8 h (Public occupational exposure limit value) 3.9 ppm
Time-weighted average exposure limit 8 h (Public occupational exposure limit value) 10 mg/m³

France

Ethylèneglycol (vapeur)
Pentaérythritol
Poussières réputées sans effet spécifique, fraction alvéolaire
Poussières réputées sans effet spécifique
Titane (dioxyde de), en Ti

Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	20 ppm
Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	52 mg/m³
Short time value (VRI: Valeur réglementaire indicative)	40 ppm
Short time value (VRI: Valeur réglementaire indicative)	104 mg/m³
Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	5 mg/m³
Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 mg/m³
Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³

Germany

Allgemeiner Staubgrenzwert: Alveolengängige Fraktion
Ethandiol

Time-weighted average exposure limit 8 h (TRGS 900)	1.25 mg/m³
Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
Time-weighted average exposure limit 8 h (TRGS 900)	26 mg/m³

UK

Ethane-1,2-diol particulate
Ethane-1,2-diol vapour
Inhalable dust
MMMF (Machine-made mineral fibre) (except for refraction ceramic fibres and special purpose fibres)
Pentaerythritol inhalable dust
Pentaerythritol respirable dust
Respirable dust
Titanium dioxide respirable
Titanium dioxide total inhalable

Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	20 ppm
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	52 mg/m³
Short time value (Workplace exposure limit (EH40/2005))	40 ppm
Short time value (Workplace exposure limit (EH40/2005))	104 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 ppm
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	5 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Short time value (Workplace exposure limit (EH40/2005))	20 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

USA (TLV-ACGIH)

Ethylene glycol
Time-weighted average exposure limit 8 h (TLV - Adopted Value)
Short time value (TLV - Adopted Value)
Short time value (TLV - Adopted Value)
Particulates (insoluble or poorly soluble) not otherwise specified Time-weighted average exposure limit 8 h (TLV - Adopted Value)
Pentaerythritol Time-weighted average exposure limit 8 h (TLV - Adopted Value)
Titanium dioxide Time-weighted average exposure limit 8 h (TLV - Adopted Value)
(V): Vapor fraction
(I,H): Inhalable fraction, Aerosol only
(R): Respirable fraction

b) National biological limit values
If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product nameTestNumber

1,2-ethanediol NIOSH5500
Ethylene Glycol NIOSH5523
Ethylene Glycol OSHA2024

8.1.3 Applicable limit values when using the substance or mixture as intended
If limit values are applicable and available these will be listed below.

8.1.4 Threshold values
DNEL/DMEL - Workers

ethanediol

Effect level (DNEL/DMEL)
DNEL

Type
Long-term local effects inhalation Long-term systemic effects dermal

Value
35 mg/m³
106 mg/kg bw/day

DNEL/DMEL - General population
ethanediol

Effect level (DNEL/DMEL)
DNEL

Type
Long-term local effects inhalation
Long-term systemic effects dermal

PNEC
ethanediol

Compartments Value
Fresh water 10 mg/l
Marine water 1 mg/l
Aqua (intermittent releases) 10 mg/l
Fresh water sediment 37 mg/kg sediment dw
Marine water sediment 3.7 mg/kg sediment dw
STP 199.5 mg/l
Soil 1.53 mg/kg soil dw

8.1.5 Control banding
If applicable and available it will be listed below.

Value
35 mg/m³
106 mg/kg bw/day

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls
Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment
Observe strict hygiene. Do not eat, drink or smoke during work.
a) Respiratory protection:
Respiratory protection not required in normal conditions.
b) Hand protection:
Gloves.
c) Eye protection:
Face shield.
d) Skin protection:
Protective clothing. (EN 14605 0r EN 374)

8.2.3 Environmental exposure controls:
See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

Physical form	Paste (Liquid)
Odour	Mild odour
Odour threshold	No data available (test not performed)
Colour	Rose
Particle size	Not applicable
Explosion limits	No data available(test not performed)
Flammability	Not classified as flammable
Log Kow	Not applicable(mixture)
Dynamic viscosity	3000 mPa.s 20 °C
Kinematic viscosity	No data available(test not performed)
Melting point	No data available(test not performed)
Boiling point	No data available(test not performed)
Evaporation rate	No data available(test not performed)
Relative vapour density	No data available(test not performed)
Solubility	Water ; soluble
Vapour pressure	No data available(test not performed)
Relative density	No data available(test not performed)
Absolute density	No data available(test not performed)
Decomposition temperature	No data available(test not performed)
Auto-ignition temperature	> 100 °C
Flash point	No data available (test not performed)
pH	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard.

10.2. Chemical stability

No data available.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours and sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

ValueExposure timeSpeciesValueRemark
determination

Oral category 4 Annex VI

Oral LD50BASF-internal7712 mg/kg bw Rat (male /Experimental value
standards female)

Dermal LD50 Developmental> 3500 mg/kg bw Mouse (male /Experimental value
toxicity study female)

Inhalation (mist) LC50 Teratogenicity study> 2.5 mg/l air 6 h Rat (male / Experimental value
female)

In the light of practical experience, the classification for this substance is more stringent than the one based on test results of the used test organisms

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Judgement is based on the relevant ingredients
ethanediol

Route of exposureResultMethodExposure timeTime pointSpeciesValueRemark
determination

1; 24 hours Rabbit Experimental
value

8 days Rabbit Experimental
value

Eye Not irritatingBASF-internal
standards

Skin Not irritatingBASF-internal
standards

Conclusion

Not classified as irritating to the skin
Not classified as irritating to the eyes
Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Judgement is based on the relevant ingredients
ethanediol

Route of exposureResultMethod

Skin Not sensitizingGuinea pig
maximisation test

Conclusion

Not classified as sensitizing for skin
Not classified as sensitizing for inhalation

Specific target organ toxicity

Judgement is based on the relevant ingredients

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 408	150 mg/kg bw/day	Kidney	No effect	16 weeks (daily)	Rat (male)	Experimental value
Oral (diet)	OECD	OECD 408	500 mg/kg bw/day	Kidney	Histopathological changes	16 weeks (daily)	Rat (male)	Experimental value
Dermal	NOAEL	OECD 410	>2200 mg/kg bw		No effect	4 weeks (daily)	Dog (male)	Experimental value

Conclusion
Not classified for subchronic toxicity

Mutagenicity (in vitro)

Judgement is based on the relevant ingredients
ethanediol

Result	Method	Test substrate	Effect	Value	Remark
Negative	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

Result	Method	Exposure time	Test substrate	Organ	Value
Negative	Chromosome		Rat 9male/female)		Experimental value

Mutagenicity (in vivo)

Judgement is based on the relevant ingredients
ethanediol
Conclusion
Not classified for mutagenic or genotoxic toxicity

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral	NOAEL	Carcinogenic	1000 mg/kg bw/day	24 months	Rat (male)			Experimental value

Reproductive toxcity	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Developmental toxicity	150 mg/m³	6 days (gestation, daily) - 15 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility	NOAEL	3 generation study	>1000 mg/kg bw/day		Rat (male/female)	No effect		Experimental value

SECTION 12: Ecological information

12.1. Toxicity

FRED

Judgement of the mixture is based on the relevant ingredients

Route of exposure	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 600/4- 90/027	72860 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value
Toxixcity algae and other aquatic plants	EC50	EPA 600/9- 78-018	6500 mg/l	96 h	Pseudokirchneri ella subcapitata			Experimental value
Long term toxicity fish	NOEC	EPA 600/4	13000 mg/l	7 days	Pimephales promelas			Experimental value
Long term toxicity aquatic crustacea	NOEC	90/027 EPA 600/4	15380 mg/l	7 days	Ceriodaphnia sp.		Fresh water	Experimental value
Toxicity aquatic mircro-organisms	EC20	ISO 8192	> 1995 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Read-across
	EC5	DIN 38412-8	> 10000 mg/l 16 h	16 h	Pseudomonas putida			Experimental value

Conclusion
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

ethanediol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A	90 % - 100 %	10 days	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
SRC AOP v1.92	46.3 day(s)	500000 /cm³	Calculated value

Conclusion
Water
Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

FRED

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

Method	Remark	Value	Temperature	Value determination
				Calculated

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.4. Mobility in soil

Parameter	Method	Value	Value determination
Log koc	SRC PCKOCWIN v1.66	0	Calculated

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.1327 Pa.m³/mol	SRC HENRYWIN v3.10	25 °C		Calculated

Method	Fraction air	Fraction	Fraction sediment	Fraction soil	Fraction water	Value determination
Other	0.03%		0%	0%	100%	Calculated value

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s)fulfil(s)the criteria of PBT and vPvB according to Annex XIII of Regulaon(EC)No1907/2006.

12.6. Other adverse effects

FRED

Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regula on (EC) No 1005/2009)

ethanediol

Groundwater

Groundwater pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your idenfied use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Direcve2008/98/EC, as amended by Regulation(EU)No1357/2014and Regulaon (EU)No2017/997.The waste code must be assigned by the user, preferably in consultation with the(environmental) authorities concerned.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

Any waste water from cleaning machinery on site will be sealed in product containers and returned to Intelligent Membranes for disposal.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 15 01 02 (plastic packaging).

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14.1. UN number	
Transport	Not subject
14.2. UN proper shipping name	
14.3. Transport hazard class(es)	
Hazard identification number	
Class	
Classification code	
14.4. Packing group	
Packing group	
Labels	
14.5. Environmental hazards	
Environmentally hazardous substance mark	No
14.6. Special precautions for user	
Special provisions	
Limited quantities	
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
Annex II of MARPOL 73/78	Not applicable, based on available data

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content

Insufficient data

Product name. Skin resorption

Ethylene glycol Skin

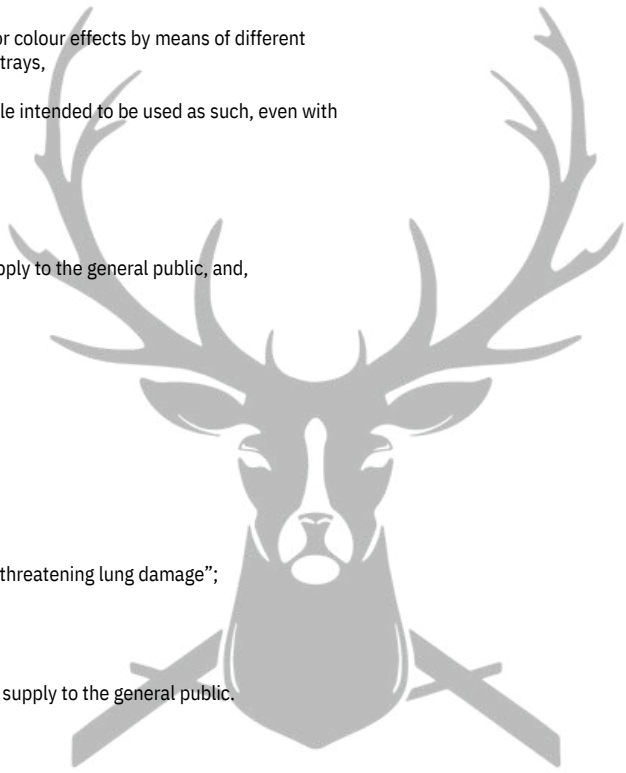
REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Designation of the substance, of the group of conditions of restriction substances or of the mixture.

Liquid substances or mixtures fulfilling the 1. Shall not be used in:
criteria for any of the following hazard classes — ornamental articles intended to produce light or colour effects by means of different
or categories set out in Annex I to Regulation phases, for example in ornamental lamps and ashtrays,
(EC) No 1272/2008: — tricks and jokes,
(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 — games for one or more participants, or any article intended to be used as such, even with
types A and B, 2.9, 2.10, 2.12, 2.13 categories ornamental aspects,
1 and 2, 2.14 categories 1 and 2, 2.15 types A 2.

Articles not complying with paragraph 1 shall not be placed on the market.
to F; 3. Shall not be placed on the market if they contain a colouring agent, unless required for
(b) hazard classes 3.1 to 3.6, 3.7 adverse fiscal reasons, or perfume, or both, if they:
effects on sexual function and fertility or on — can be used as fuel in decorative oil lamps for supply to the general public, and,
— present an aspiration hazard and are labelled with H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market
unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted
by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Community provisions relating to the
classification, packaging and labelling of dangerous substances and mixtures, suppliers shall
ensure, before the placing on the market, that the following requirements are met:
a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly
and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of
children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of
lamps — may lead to life- threatening lung damage”;
b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly
and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”;
c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public
are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency
to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to
ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter
fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data
on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority
in the Member State concerned. Member States shall make those data available to the Commission.'



National legislation Belgium
FRED
No data available
ethanediol
Résorption peau

Ethylèneglycol (en aérosol); D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.

National legislation The Netherlands
FRED
Waterbezwaarlijkheid Z (1); Algemene Beoordelingsmethodiek (ABM)
ethanediol
Huidopname (wettelijk) Ethaan-1,2-diol (damp); H

National legislation France
FRED
No data available
ethanediol
Risque de pénétration Ethylèneglycol (vapeur); PP
percutanée

National legislation Germany
FRED
WGK 1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
ethanediol
TA-Luft 5.2.5
TRGS900 - Risiko der Ethandiol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Fruchtschädigung Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe Ethandiol; H; Hautresorptiv

National legislation United Kingdom
FRED
No data available
ethanediol
Skin absorption Ethane-1,2-diol particulate; Sk
Ethane-1,2-diol vapour; Sk

Other relevant data
FRED
No data available
ethanediol
TLV - Carcinogen Ethylene glycol; A4

15.2. Chemical safety assessment
No chemical safety assessment has been conducted for the mixture. ethanediol
A chemical safety assessment has been performed.

SECTION 16: Other information

Full text of any H-statements referred to under heading 3:
H302 Harmful if swallowed.
H373 May cause damage to organs (kidneys) through prolonged or repeated exposure if swallowed.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

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