



SAFETY DATA SHEET

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Version 1

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

1.1.

Product identifier

Product Code(s): 01621100-M
Product Name HOUGHTO-SAFE 620 E
Product Registration number
Denmark -
Norway -
Sweden -
EC #
Pure substance/preparation Contains Ethane-1,2-diol

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

Recommended use Fire-resistant hydraulic fluid

Uses advised against Any other purpose.

1.3. Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier

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Houghton Kimya San. A.Ş
Kosuyolu Mah
Asma Dall Sok
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İstanbul
Türkiye
Phone Number: +90 216 325 15 15

1.4. Emergency telephone number

3E Company: (+)1 760 476 3961 (Code 333938)

Austria	Notfall-Telefonnummer +43 (0) 1 406 4343
Bulgaria	Телефон за спешни случаи +359 2 9154 409
Switzerland	145; +41 (0) 44 254 51 51
Czech Republic	Telefonní číslo pro naléhavé situace +420 224 919 293
Denmark	Ring til Giftlinjen på +45 82 12 12 12
Finland	Hätäpuhelinnumero +358 09 471 977
France	Numéro d'appel d'urgence +33 (0)1 45 42 5959
Hungary	Díjmentesen hívható zöld szám +36 80 20 11 99
Ireland	Emergency telephone number +353 01 809 2166
Netherlands	Telefoonnummer voor +31 30 274 88 88
Norway	Nødnummer +47 22 59 13 00
Poland	112
Portugal	Número de telefone de emergência +351 808 250 143
Romania	Număr de telefon care poate fi apelat în caz de urgență +021 318 36 06 (08:00-15:00)
Spain	Número de teléfono de emergencia +34 91 562 0420
Sweden	Telefonnummer för nödsituationer +46 08 33 12 31 (09:00-17:00)
Turkey	(+)1 760 476 3959 (Code 333938)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Toxicity - Oral	Category 4 - (H302)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

2.2. Label Elements

Contains Ethane-1,2-diol

**Signal Word**

WARNING

Hazard Statements

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - EU (§28, 1272/2008)

P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician

2.3. Other hazards

No information available.

- 0.00072 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0.0018 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 2.1018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 0.5018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 2.1018 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

SECTION 3: Composition/information on ingredients

3.1. Substances / 3.2. Mixtures

This product is a mixture. Health hazard information is based on its ingredients

Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)	REACH Registration Number
Ethane-1,2-diol	203-473-3	107-21-1	25% - 50%	Acute Tox. 4 (H302) STOT RE 2 (H373)	01-2119456816-28-xxx x
Glycerol	200-289-5	56-81-5	2.5% - 10%	**	no data available
Neutralised Dibutylamine	203-921-8	111-92-2*	0% - 1%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Flam Liq. 3 (H226)	01-2119475606-30-xxx x
2-Diethylaminoethanol	202-845-2	100-37-8	0% - 1%	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Flam Liq. 3 (H226) STOT SE 3 (H335)	01-2119488937-14-xxx x
Neutralised 2-diethylaminoethanol	202-845-2	100-37-8*	0% - 1%	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Acute Tox. 3 (H331) Flam Liq. 3 (H226)	01-2119488937-14-xxx x

** Substances for which there are Community workplace exposure limits

Full text of H- and EUH-phrases: see section 16

Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.

Advice for non-emergency personnel Keep people away from and upwind of spill/leak. Material can create slippery conditions.

Advice for emergency responders For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

6.4. Reference to other sections

See Section 8/12/13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep container tightly closed in a dry and well-ventilated place.

Recommended Shelf Life

No information available.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

7.3. Specific end uses

Specific use(s) Fire-resistant hydraulic fluid

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain
Ethane-1,2-diol	S* TWA 20 ppm TWA 52 mg/m ³ STEL 40 ppm STEL 104 mg/m ³	STEL: 40 ppm STEL: 104 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³ TWA: 10 mg/m ³ Skin	VME: 20 ppm VME: 52 mg/m ³ VLCT: 40 ppm VLCT: 104 mg/m ³	S* STEL: 40 ppm STEL: 104 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³
Glycerol		STEL: 30 mg/m ³ TWA: 10 mg/m ³	VME: 10 mg/m ³	TWA: 10 mg/m ³
2-Diethylaminoethanol			VME: 10 ppm VME: 50 mg/m ³	S* TWA: 2 ppm TWA: 9.7 mg/m ³

Neutralised 2-diethylaminoethanol			VME: 10 ppm VME: 50 mg/m ³	
Chemical Name	Germany	Italy	Portugal	The Netherlands
Ethane-1,2-diol	MAK: 10 ppm MAK: 26 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 52 mg/m ³ Skin TWA: 10 ppm TWA: 26 mg/m ³	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Skin	Ceiling: 100 mg/m ³	Skin STEL: 104 mg/m ³ TWA: 52 mg/m ³ TWA: 10 mg/m ³
Glycerol	MAK: 50 mg/m ³ Ceiling / Peak: 100 mg/m ³		TWA: 10 mg/m ³	
Neutralised Dibutylamine	TWA: 5 ppm TWA: 29 mg/m ³			
2-Diethylaminoethanol	MAK: 5 ppm MAK: 24 mg/m ³ Ceiling / Peak: 5 ppm Ceiling / Peak: 24 mg/m ³ Skin TWA: 5 ppm TWA: 24 mg/m ³		TWA: 2 ppm	
Neutralised 2-diethylaminoethanol	MAK: 5 ppm MAK: 24 mg/m ³ Ceiling / Peak: 5 ppm Ceiling / Peak: 24 mg/m ³ Skin TWA: 5 ppm TWA: 24 mg/m ³		TWA: 2 ppm	
Chemical Name	Austria	Switzerland	Poland	Ireland
Ethane-1,2-diol	Skin STEL 20 ppm STEL 52 mg/m ³ MAK: 10 ppm MAK: 26 mg/m ³	Skin STEL: 20 ppm STEL: 52 mg/m ³ MAK: 10 ppm MAK: 26 mg/m ³	NDSch: 50 mg/m ³ NDS: 15 mg/m ³	TWA: 10 mg/m ³ TWA: 20 ppm STEL: 40 ppm STEL: 104 mg/m ³ Skin
Glycerol		STEL: 100 mg/m ³ MAK: 50 mg/m ³	NDS: 10 mg/m ³	TWA: 10 mg/m ³
Neutralised Dibutylamine	Skin STEL 5 ppm STEL 29 mg/m ³ MAK: 5 ppm MAK: 29 mg/m ³ Ceiling 5 ppm Ceiling 29 mg/m ³			
2-Diethylaminoethanol	Skin STEL 5 ppm STEL 24 mg/m ³ MAK: 5 ppm MAK: 24 mg/m ³ Ceiling 5 ppm Ceiling 24 mg/m ³	Skin MAK: 10 ppm MAK: 50 mg/m ³	NDS: 50 mg/m ³ Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin
Neutralised 2-diethylaminoethanol	Skin STEL 5 ppm STEL 24 mg/m ³ MAK: 5 ppm MAK: 24 mg/m ³ Ceiling 5 ppm Ceiling 24 mg/m ³	Skin MAK: 10 ppm MAK: 50 mg/m ³	NDS: 50 mg/m ³ Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin
Chemical Name	Finland	Denmark	Norway	Sweden
Ethane-1,2-diol	TWA: 20 ppm TWA: 50 mg/m ³ STEL: 40 ppm STEL: 100 mg/m ³ Skin	TWA: 10 ppm TWA: 26 mg/m ³ TWA: 10 mg/m ³ Skin	Skin Ceiling: 20 ppm 52 mg/m ³ STEL: 40 ppm 104 mg/m ³	LLV: 10 ppm LLV: 25 mg/m ³ H STV: 20 ppm STV: 50 mg/m ³
Glycerol	TWA: 20 mg/m ³			
Neutralised Dibutylamine	STEL: 5 ppm STEL: 27 mg/m ³ Skin			
2-Diethylaminoethanol	STEL: 10 ppm STEL: 49 mg/m ³ Skin	TWA: 2 ppm TWA: 9.6 mg/m ³ Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin STEL: 20 ppm STEL: 75 mg/m ³	LLV: 2 ppm LLV: 10 mg/m ³ H STV: 10 ppm STV: 50 mg/m ³
Neutralised 2-diethylaminoethanol	STEL: 10 ppm STEL: 49 mg/m ³ Skin	TWA: 2 ppm TWA: 9.6 mg/m ³ Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin STEL: 20 ppm STEL: 75	LLV: 2 ppm LLV: 10 mg/m ³ H STV: 10 ppm

				mg/m ³	STV: 50 mg/m ³
Chemical Name	Czech Republic	Hungary	Bulgaria	Romania	
Ethane-1,2-diol	Ceiling: 100 mg/m ³ TWA: 50 mg/m ³ Skin	STEL: 104 mg/m ³ TWA: 52 mg/m ³ Skin	STEL: 104.0 mg/m ³ TWA: 52.0 mg/m ³ Skin	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Skin	
Glycerol	Ceiling: 15 mg/m ³ TWA: 10 mg/m ³				
Neutralised Dibutylamine				STEL: 1.1 ppm STEL: 6 mg/m ³	
2-Diethylaminoethanol	Ceiling: 100 mg/m ³ TWA: 50 mg/m ³ Skin		TWA: 50.0 mg/m ³ Skin	TWA: 6 ppm TWA: 30 mg/m ³ STEL: 9 ppm STEL: 45 mg/m ³ Skin	
Neutralised 2-diethylaminoethanol	Ceiling: 100 mg/m ³ TWA: 50 mg/m ³ Skin		TWA: 50.0 mg/m ³ Skin	TWA: 6 ppm TWA: 30 mg/m ³ STEL: 9 ppm STEL: 45 mg/m ³ Skin	

Workers Systemic toxicity

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol		106 mg/kg	35 mg/m ³			
Neutralised Dibutylamine			29 mg/m ³			29 mg/m ³
2-Diethylaminoethanol		1 mg/kg	7.34 mg/m ³			
Neutralised 2-diethylaminoethanol		1 mg/kg	7.34 mg/m ³			

Workers Local effects

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol						35 mg/m ³
Glycerol			56 mg/m ³			
Neutralised Dibutylamine			29 mg/m ³			29 mg/m ³
2-Diethylaminoethanol			1.07 mg/m ³			
Neutralised 2-diethylaminoethanol			1.07 mg/m ³			

Consumers Systemic toxicity

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol		53 mg/kg				
Glycerol	229 mg/kg					

Consumers Local effects

Chemical Name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
Ethane-1,2-diol			7 mg/m ³			
Glycerol			33 mg/m ³			

Predicted No Effect Concentration (PNEC)

Chemical Name	Fresh water	Sea water	Fresh water sediment	Sea sediment	Soil
Ethane-1,2-diol	10 mg/L	1 mg/L	37 mg/kg	3.7 mg/kg	1.53 mg/kg
Glycerol	0.885 mg/L	0.0885 mg/L	3.3 mg/kg	0.33 mg/kg	0.141 mg/kg
Neutralised Dibutylamine	0.084 mg/L	0.0084 mg/L	11.4 mg/kg	1.14 mg/kg	2.23 mg/kg
2-Diethylaminoethanol	0.044 mg/L	0.0044 mg/L	0.475 mg/kg	0.0475 mg/kg	0.069 mg/kg
Neutralised 2-diethylaminoethanol	0.044 mg/L	0.0044 mg/L	0.475 mg/kg	0.0475 mg/kg	0.069 mg/kg

8.2. Exposure controls

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye Protection

Safety glasses with side-shields.

Hand Protection

Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Skin and body protection

Long sleeved clothing.

Respiratory protection

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hygiene measures

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

No special environmental precautions required.

Thermal hazards

None under normal use conditions

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state @20°C	liquid	Appearance	clear Red
Odor	amine-like	Odor Threshold	Not Applicable

<u>Property</u>	<u>Values</u>	<u>Note</u>
pH	9.8	
Melting Point / Freezing Point	<= -45 °C / <= -49 °F	
Boiling point/boiling range	No information available.	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available.	
Lower flammability limit	No information available.	
Vapor pressure	No information available.	
Vapor density	No information available.	
Relative density	1.09	@ 15.5°C
Solubility(ies)	Soluble in water	
Partition coefficient: n-octanol/water	Not Applicable	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity, kinematic	= 38 cSt @ 40 °C	ASTM D 445
Explosive properties	Not Applicable	
Oxidizing Properties	Not Applicable	

9.2 Other information

Viscosity, kinematic (100°C)	No information available
Pour point	No information available
VOC Content	No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal use conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal use conditions

10.4. Conditions to avoid

Do not freeze

10.5. Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

10.6. Hazardous decomposition products

None under normal use conditions

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Product Information - Principle Routes of Exposure

Inhalation	None known
Eye contact	None known
Skin contact	None known
Ingestion	Harmful if swallowed; Ingestion constitutes the main danger because of the toxicity of ethylene glycol; May cause adverse liver effects; May cause adverse kidney effects

Acute toxicity - Product Information

Harmful if swallowed.

Acute toxicity - Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Ethane-1,2-diol	4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	
Glycerol	12600 mg/kg (Rat)	> 21900 mg/kg (Rat)	
Neutralised Dibutylamine	550 mg/kg (Rat)	= 768 mg/kg (Rabbit)	
2-Diethylaminoethanol	1320 mg/kg (Rat)	1100 mg/kg (Rabbit)	
Neutralised 2-diethylaminoethanol	1320 mg/kg (Rat)	1100 mg/kg (Rabbit)	

Skin corrosion/irritation	None known.
Serious eye damage/eye irritation	None known.
Sensitization	
Respiratory Sensitization	None known.
Skin sensitization	None known.
Germ Cell Mutagenicity	None known.
Carcinogenicity	None known.
Reproductive toxicity	None known.
Specific target organ systemic toxicity (single exposure)	None known
Specific target organ systemic toxicity (repeated exposure)	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	None known.

SECTION 12: Ecological information

12.1. Toxicity

No special environmental measures are necessary.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Ethane-1,2-diol	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14-18: 96 h Oncorhynchus mykiss ml/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000-60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static		46300: 48 h Daphnia magna mg/L EC50
Glycerol		54000: 96 h Oncorhynchus mykiss ml/L LC50		>10000: 24 h Daphnia Magna mg/L EC50
Neutralised Dibutylamine	16.9: 72 h Scenedesmus subspicatus mg/L EC50	5.5: 96 h Oncorhynchus mykiss mg/L LC50		65.98: 48 h Daphnia magna mg/L EC50 8.4: 48 h Ceriodaphnia dubia mg/L EC50
2-Diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50 static		83.6: 48 h Daphnia magna Straus mg/L EC50
Neutralised 2-diethylaminoethanol	30: 72 h Desmodesmus subspicatus mg/L EC50	1660-1920: 96 h Pimephales promelas mg/L LC50 flow-through 100-220: 96 h Leuciscus idus mg/L LC50 static		83.6: 48 h Daphnia magna Straus mg/L EC50

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available

Chemical Name	log Pow
Ethane-1,2-diol	-1.93
Glycerol	-1.76
Neutralised Dibutylamine	2.06
2-Diethylaminoethanol	0.21
Neutralised 2-diethylaminoethanol	0.21

12.4. Mobility in soil

Miscible with water

12.5. Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods**Waste from Residues / Unused Products**

Dispose of as hazardous waste in compliance with local and national regulations

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Observe all label precautions until container is cleaned, reconditioned or destroyed.

Other Data

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.1. UN-Number

Not regulated

14.2. UN proper shipping name

Not regulated

14.3. Transport hazard class

Not regulated

14.4. Packing group

Not regulated

14.5. Environmental Hazards

None.

14.6. Special precautions for users

None.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

IMDG/IMO Not regulated**ADR/RID** Not regulated**ICAO/IATA** Not regulated**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)
 Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

Statutory Instruments: Control of Substances Hazardous to Health Regulations 2002. Chemicals (Hazard Information and Packaging) Regulations 2009.

Acts of Parliament: The Health and Safety at Work etc. Act 1974. Environment Protection Act 1990.

Regulation on classification, labeling, of hazardous chemicals (2002 changing 2005). Appendix VI to Regulation on classification, labeling etc. of hazardous chemicals (2002 changing 2010), list of hazardous substances (as amended). Guidelines for submission and declaration of hazardous waste (2009). Transport of dangerous goods: ADR, RID, IMDG and IATA. Administrative norms for pollution of the atmosphere, 2009.

Workplace exposure limits (EH40)

WGK Classification

Low hazard to water/Class 1

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet**

Repr.-Reproduction toxicity

Asp. Tox. - Aspiration Toxicity

Acute Tox. - Acute Toxicity

Aquatic Acute - Acute Aquatic Toxicity

Aquatic Chronic - Chronic Aquatic Toxicity

Eye Dam. - Eye Damage

Eye Irrit. - Eye Irritation

Skin Corr. - Skin Corrosion

Skin Irrit. - Skin Irritation

Skin Sens. - Skin Sensitizer

Resp. Sens. - Respiratory Sensitizer

STOT SE - Specific target organ systemic toxicity (Single exposure)

STOT RE - Specific target organ systemic toxicity (repeated exposure)

VOC - Volatile organic compounds

Full text of H-Statements referred to under sections 2 and 3

<ul style="list-style-type: none"> • H224 - Extremely flammable liquid and vapor • H225 - Highly flammable liquid and vapor • H226 - Flammable liquid and vapor • H270 - May cause or intensify fire; oxidizer • H271 - May cause fire or explosion; strong oxidizer • H272 - May intensify fire; oxidizer • H290 - May be corrosive to metals • H300 - Fatal if swallowed • H301 - Toxic if swallowed • H302 - Harmful if swallowed • H304 - May be fatal if swallowed and enters airways • H310 - Fatal in contact with skin • H311 - Toxic in contact with skin • H312 - Harmful in contact with skin • H314 - Causes severe skin burns and eye damage • H315 - Causes skin irritation • H317 - May cause an allergic skin reaction • H318 - Causes serious eye damage • H319 - Causes serious eye irritation • H330 - Fatal if inhaled • H331 - Toxic if inhaled • H332 - Harmful if inhaled • H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled • H335 - May cause respiratory irritation • H336 - May cause drowsiness or dizziness • H340 - May cause genetic defects 	<ul style="list-style-type: none"> • H341 - Suspected of causing genetic defects • H350 - May cause cancer • H351 - Suspected of causing cancer • H360 - May damage fertility or the unborn child • H361 - Suspected of damaging fertility or the unborn child • H362 - May cause harm to breast-fed children • H370 - Causes damage to organs • H371 - May cause damage to organs • H372 - Causes damage to organs through prolonged or repeated exposure • H373 - May cause damage to organs through prolonged or repeated exposure • H400 - Very toxic to aquatic life • H410 - Very toxic to aquatic life with long lasting effects • H411 - Toxic to aquatic life with long lasting effects • H412 - Harmful to aquatic life with long lasting effects • H413 - May cause long lasting harmful effects to aquatic life. • H360Df - May damage the unborn child. Suspected of damaging fertility • H360D - May damage the unborn child • H360FD - May damage fertility. May damage the unborn child • H360F - May damage fertility • H361d - Suspected of damaging the unborn child • H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child • H361f - Suspected of damaging fertility • EUH066 - Repeated exposure may cause skin dryness or cracking • EUH210 - Safety data sheet available on request. • EUH208 - May produce an allergic reaction
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Exposure scenario

No information available.

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