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# REACTIF LE CHATELIER N 2 - 17269-17270

# SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name: REACTIF LE CHATELIER N 2

Product code: 17269-17270. LE CHATELIER N 2 ETCHANT UFI: 5090-Y0QG-T00S-M8CP

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

Etching reagent

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

Registered company name: PRESI S.A.S.

Address: 11 Rue du vercors.38320.EYBENS.France.

Telephone: +33 (0)4.76.72.00.21. Fax: +33 (0)4.76.72.05.84.

presi@presi.com www.presi.com

# 1.4. Emergency telephone number: +33 (0)1.45.42.59.59.

Association/Organisation: INRS / ORFILA http://www.centres-antipoison.net.

# **SECTION 2: HAZARDS IDENTIFICATION**

# 2.1. Classification of the substance or mixture

#### In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 2 (Flam. Liq. 2, H225).

Hazardous to the aquatic environment - Chronic hazard, Category 3 (Aquatic Chronic 3, H412).

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

# 2.2. Label elements

#### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms:



GHS02

Signal Word : DANGER

Hazard statements:

H225 Highly flammable liquid and vapour.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements - Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

Precautionary statements - Storage :

P403 + P235 Store in a well-ventilated place. Keep cool.

Precautionary statements - Disposal:

P501 Dispose of contents/container to an appropriate treatment and disposal facility, in accordance with

applicable laws and regulations and based on product characteristics at time of disposal

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#### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 59 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances= 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

**Composition:** 

Identification	Classification (EC) 1272/2008	Note	0/0
INDEX: 603-002-00-5	GHS02	[i]	50 <= x % < 100
CAS: 64-17-5	Dgr	[-]	
EC: 200-578-6	Flam. Liq. 2, H225		
REACH: 01-2119457610-43-0000	1 /		
ETHANOL			
INDEX: 017-002-01-X	GHS05, GHS07	В	$1 \le x \% < 2.5$
EC: 231-595-7	Dgr		
REACH: 01-2119484862-27	Skin Corr. 1B, H314		
	STOT SE 3, H335		
HYDROCHLORIC ACID			
CAS: 10125-13-0	GHS07, GHS09		$1 \le x \% < 2.5$
EC: 231-210-2	Wng		
REACH: 01-2119970306-36-0000	Acute Tox. 4, H302		
	Skin Irrit. 2, H315		
CUIVRE (II) CHLORURE 2H2O	Eye Irrit. 2, H319		
	STOT SE 3, H335		
	Aquatic Acute 1, H400		
	M Acute = 1		
	Aquatic Chronic 1, H410		
	M Chronic = 1		
INDEX: 609-009-00-X	GHS01, GHS06	[i]	0 <= x % < 1
CAS: 88-89-1	Dgr		
EC: 201-865-9	Expl. 1,1, H201		
	Acute Tox. 3, H331		
2,4,6-TRINITROPHENOL	Acute Tox. 3, H311		
	Acute Tox. 3, H301		

#### **Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: 017-002-01-X	Skin Corr. 1B: H314 C>= 25%	
EC: 231-595-7	Skin Irrit. 2: H315 10% <= C < 25%	
REACH: 01-2119484862-27	Eye Dam. 1: H318 C>= 25%	
	Eye Irrit. 2: H319 10% <= C < 25%	
HYDROCHLORIC ACID	STOT SE 3: H335 C>= 10%	

#### **Information on ingredients:**

(Full text of H-phrases: see section 16)

[i] Substance for which maximum workplace exposure limits are available.

# **SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

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# 4.1. description of first aid measures

### In the event of exposure by inhalation:

Move to fresh air

#### In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Consult a physician if necessary

#### In the event of splashes or contact with skin:

Wash well with water

#### In the event of swallowing:

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

#### SECTION 5: FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

# 5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

# Suitable methods of extinction

In the event of a fire, use:

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO2)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

#### Unsuitable methods of extinction

In the event of a fire, do not use:

- water jet

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- hydrogen chloride (HCl)
- phosgene (CCl2O)
- chlorine (Cl2)

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#### 5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Consult the safety measures listed under headings 7 and 8.

#### For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

#### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

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

Clean preferably with a detergent, do not use solvents.

#### 6.4. Reference to other sections

No data available.

#### **SECTION 7: HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

#### 7.1. Precautions for safe handling

Always wash hands after handling.

Ensure that there is adequate ventilation, especially in confined areas.

#### Fire prevention:

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged: always ground when decanting. Wear antistatic shoes and clothing and make floors of non-conductive

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

# Recommended equipment and procedures:

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages which have been opened must be reclosed carefully and stored in an upright position.

#### Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

#### Storage

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

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.



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Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

# Packaging

Always keep in packaging made of an identical material to the original.

Suitable packaging materials:

- Polyethylene

# 7.3. Specific end use(s)

No data available.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

# Occupational exposure limits:

- UK :

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1000 ppm				
	1920 mg/m3				
88-89-1	0.1 mg/m3	0.3 mg/m3			

#### Derived no effect level (DNEL) or derived minimum effect level (DMEL):

#### HYDROCHLORIC ACID

Final use: Workers. Exposure method: Inhalation.

Potential health effects: Long term local effects.

DNEL: 8 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects.
DNEL: 15 mg of substance/m3

ETHANOL (CAS: 64-17-5)

Final use: Workers.

Exposure method: Dermal contact.

Potential health effects:

DNEL:

Long term local effects.

343 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 950 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects.
DNEL: 1900 mg of substance/m3

Final use: Man exposed via the environment.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 87 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.



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DNEL: 206 mg/kg body weight/day

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.
DNEL: 114 mg of substance/m3

Exposure method: Inhalation.

Potential health effects: Short term local effects.

DNEL: 950 mg of substance/m3

#### Predicted no effect concentration (PNEC):

CUIVRE (II) CHLORURE 2H2O (CAS: 10125-13-0)

Environmental compartment: Soil.
PNEC: 65 mg/kg

Environmental compartment: Fresh water. PNEC: 7.8 µg/l

 $\begin{array}{ll} \mbox{Environmental compartment:} & \mbox{Sea water.} \\ \mbox{PNEC:} & \mbox{5.2 $\mu g/l$} \end{array}$ 

Environmental compartment: Fresh water sediment.

PNEC: 87 mg/kg

Environmental compartment: Marine sediment. PNEC: 676 mg/kg

Environmental compartment: Waste water treatment plant.

PNEC: 230 μg/l

HYDROCHLORIC ACID

Environmental compartment: Fresh water. PNEC: 36 µg/l

Environmental compartment: Sea water. PNEC:  $36 \mu g/l$ 

Environmental compartment: Intermittent waste water.

PNEC:  $45 \mu g/l$ 

Environmental compartment: Waste water treatment plant.

PNEC: 36 μg/l

ETHANOL (CAS: 64-17-5)

Environmental compartment: Soil. PNEC: 0.63 mg/kg

Environmental compartment: Fresh water. PNEC: 0.96 mg/l

Environmental compartment: Sea water. PNEC: 0.79 mg/l



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Environmental compartment: Intermittent waste water.

PNEC: 2.75 mg/l

Environmental compartment: Fresh water sediment.

PNEC: 3.6 mg/kg

Environmental compartment: Marine sediment. PNEC: 2.9 mg/kg

Environmental compartment: Waste water treatment plant.

PNEC: 580 mg/l

Environmental compartment: Fresh water predators (oral).

PNEC: 0.72 mg/kg

#### 8.2. Exposure controls

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

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard ISO 16321.

# - Hand protection

Type of gloves recommended:

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

#### - Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

# 9.1. Information on basic physical and chemical properties

Physical state

Physical state : Fluid liquid.

Colour

Color: Yellox - green

Odour

Odour threshold: Not stated.
Odour: Alcohol

Melting point

Melting point/melting range: Not specified.



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Freezing point

Freezing point / Freezing range: Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range:

> 35°C

Flammability

Flammability (solid, gas): Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

Flash point

Flash Point Interval: FP < 23°C

Auto-ignition temperature

Self-ignition temperature: Not specified.

**Decomposition temperature** 

Decomposition point/decomposition range: Not specified.

pН

pH: Not stated.

Strongly acidic.

pH (aqueous solution): Not stated.

Kinematic viscosity

Viscosity: Not stated.

Solubility

Water solubility: Soluble. Fat solubility: Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water: Not stated.

Vapour pressure

Vapour pressure (50°C): Not relevant.

Density and/or relative density

Density: <1

Relative vapour density

Vapour density: Not stated.

Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

VOC(g/l): 699.55

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

### SECTION 10: STABILITY AND REACTIVITY

# 10.1. Reactivity

No data available.

# 10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.



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#### 10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

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# 10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

#### Avoid:

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

#### 10.5. Incompatible materials

No data available.

# 10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- hydrogen chloride (HCl)
- phosgene (CCl2O)
- chlorine (Cl2)

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

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

#### 11.1.1. Substances

#### a) Acute toxicity:

No data available.

#### b) Skin corrosion/skin irritation:

No data available.

# c) Serious damage to eyes/eye irritation:

No data available.

#### d) Respiratory or skin sensitisation:

No data available.

#### e) Germ cell mutagenicity:

No data available.

#### f) Carcinogenicity:

No data available.

#### g) Reproductive toxicant:

No data available.

#### h) Specific target organ systemic toxicity - single exposure :

No data available.

### i) Specific target organ systemic toxicity - repeated exposure :

No data available.

#### j) Aspiration hazard:

No data available.

#### 11.1.2. Mixture

#### 11.1.2.1 Information on hazard classes

# a) Acute toxicity:

No data available. Oral route:

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No data available.

Dermal route:

#### b) Skin corrosion/skin irritation:

No data available.

#### c) Serious damage to eyes/eye irritation:

Splashes in the eyes may cause irritation and reversible damage

#### d) Respiratory or skin sensitisation:

No data available.

#### e) Germ cell mutagenicity:

No data available.

#### f) Carcinogenicity:

No data available.

# g) Reproductive toxicant:

No data available.

#### h) Specific target organ systemic toxicity - single exposure :

No data available.

#### i) Specific target organ systemic toxicity - repeated exposure :

No data available.

# j) Aspiration hazard:

No data available.

#### 11.1.2.2 Other information

# 11.2. Information on other hazards

#### **Endocrine disrupting properties**

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

# **SECTION 12: ECOLOGICAL INFORMATION**

Harmful to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

#### 12.1. Toxicity

#### 12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

#### 12.2. Persistence and degradability

No data available.

#### 12.3. Bioaccumulative potential

No data available.

#### 12.4. Mobility in soil

No data available.

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

No data available.

# 12.6. Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

#### 12.7. Other adverse effects

No data available.

### German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws):

WGK 2: Hazardous for water.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

# 13.1. Waste treatment methods

Do not pour into drains or waterways.

#### Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

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Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

#### Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

#### SECTION 14: TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2022 [41-22] - ICAO/IATA 2024 [65]).

#### 14.1. UN number or ID number

1993

#### 14.2. UN proper shipping name

UN1993=FLAMMABLE LIQUID, N.O.S.

(ethanol, 2,4,6-trinitrophenol)

#### 14.3. Transport hazard class(es)

- Classification:



#### 14.4. Packing group

#### 14.5. Environmental hazards

# 14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	II	3	33	1 L	274 601 640C	E2	2	D/E
		•	•	•	•	•	•		•	
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	3	-	II	1 L	F-E. S-E	274	E2	Category B	-	
TATEA	C1	20T 1 1	D 1	ъ	D.				FO	

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	3	-	II	353	5 L	364	60 L	A3	E2
	3	-	II	Y341	1 L	-	-	A3	E2

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

# 14.7. Maritime transport in bulk according to IMO instruments

No data available.

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#### **SECTION 15: REGULATORY INFORMATION**

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

#### Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2023/707.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/2564. (ATP 22)

#### **Container information:**

No data available.

#### Particular provisions:

No data available

#### Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH): https://echa.europa.eu/substances-restricted-under-reach.

#### Authorisations agreed under Title VII of Regulation (EC) No.1907/2006 (REACH):

The mixture does not contain any substance subject to authorisation according to Annex XIV of REACH Regulation (EC) No 1907/2006: https://echa.europa.eu/fr/authorisation-list.

#### Substances that deplete the ozone layer (EC Regulation No. 1005/2009, Montreal Protocol):

The mixture does not contain any substance posing a risk to the ozone layer.

# Persistent organic pollutants (POP) (Regulation (EU) 2019/1021):

The mixture does not contain a persistent organic pollutant.

#### PIC Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (Rotterdam Convention):

The mixture is not subject to the Prior Informed Consent (PIC) procedure.

#### **Explosives precursors:**

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

# German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws):

WGK 2: Hazardous for water.

#### Swiss ordinance on the incentive tax on volatile organic compounds:

éthanol, seulement s'il s'agit d'alcools impropres à la consommation (art. 31 de la loi fédérale sur l'alcool) 64-17-5

# 15.2. Chemical safety assessment

No data available.

#### **SECTION 16: OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

# Wording of the phrases mentioned in section 3:

H201	Explosive; mass explosion hazard.
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.



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H335 May cause respiratory irritation. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorization and Restriction of Chemical Substances.

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

UFI: Unique formulation identifier. STEL: Short-term exposure limit TWA: Time Weighted Averages

TLV: Threshold Limit Value (exposure)

AEV: Average Exposure Value.

ADR: European agreement concerning the international carriage of dangerous goods by Road.

GHS02: Flame

IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. ICAO: International Civil Aviation Organisation PBT: Persistent, bioaccumulable and toxic.

PIC: Prior Informed Consent. POP: Persistent Organic Pollutant.

RID: Regulations concerning the International carriage of Dangerous goods by rail.

SVHC: Substances of very high concern. vPvB: Very persistent, very bioaccumulable.

WGK: Wassergefahrdungsklasse (Water Hazard Class).