

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)



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

1.1. Product identifier

Product name : DOT 3 & 4

Product code : 27250

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

Brake fluid

1.3. Details of the supplier of the safety data sheet

Registered company name : MOTUL

Address : 119, Boulevard Felix Faure. 93300 AUBERVILLIERS CEDEX FRANCE

Telephone : 33.1.48.11.70.00. Fax: 33.1.48.33.28.79. Telex: .

Email : motul_hse@motul.fr

1.4. Emergency telephone number : +44 (0) 1235 239 670.

Association/Organisation : .

Other emergency numbers

BRAZIL : +55 11 3197 5891 / COLOMBIA : +57 1 508 7337 / ARGENTINA : +54 11 5984 3690 / CHILE : +562 2582 9336

Ireland : +353 1 8092566

UNITED STATES: 001 866 928 0789 / CANADA: 001 800 579 7421 / MEXICO : +52 55 5004 8763 / MIDDLE EAST - AFRICA : +44 1235 239671

24 hours a day, 7 days a week

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Eye irritation, Category 2 (Eye Irrit. 2, H319).

Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

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

Hazard pictograms :



GHS07

GHS08

Signal Word :

WARNING

Product identifiers :

EC 203-872-2 2,2'-OXYBISETHANOL

Hazard statements :

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure (if swallowed).

Precautionary statements - General :

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Precautionary statements - Prevention :

P262 Do not get in eyes, on skin, or on clothing.

P264 Wash hands thoroughly after handling.

Precautionary statements - Response :

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/attention if you feel unwell.

Precautionary statements - Disposal :

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 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.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
CAS: 143-22-6 EC: 205-592-6 REACH: 01-2119531322-53 2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	GHS05 Dgr Eye Dam. 1, H318		25 \leq x % < 50 *
CAS: 111-46-6 EC: 203-872-2 REACH: 01-2119457857-21 2,2'-OXYBIETHANOL	GHS07, GHS08 Wng Acute Tox. 4, H302 STOT RE 2, H373	[1]	10 \leq x % < 25
CAS: 111-77-3 EC: 203-906-6 REACH: 01-2119475100-52 2-(2-METHOXYETHOXY)ETHANOL	GHS08 Wng Repr. 2, H361d	[1] [2]	1 \leq x % < 2.5
CAS: 112-34-5 EC: 203-961-6 REACH: 01-2119475104-44 2-(2-BUTOXYETHOXY)ETHANOL	GHS07 Wng Eye Irrit. 2, H319	[1]	1 \leq x % < 2.5

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

Information on ingredients :

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

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

Other data :

*This substance has a specific concentration limit (SCL)

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.

4.1. Description of first aid measures

In the event of exposure by inhalation :

Remove the victim to fresh air. If the symptoms persist, call a physician.

In the event of splashes or contact with eyes :

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

If there is any redness, pain or visual impairment, consult an ophthalmologist.

Wash immediately and abundantly with water, including under the eyelids.

In the event of splashes or contact with skin :

Immediately remove all soiled clothing.

Wash immediately and abundantly with soap and 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

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Dry agent, foam, carbon dioxide.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet
- High volume 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)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Spilled product may make surfaces slippery.

For non first aid worker

Avoid any contact with the skin and eyes.

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

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

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.

Remove and wash contaminated clothing before re-using.

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

Avoid contact with eyes.

No special precaution apart from the observance of hygiene rules

Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

Take precautionary measures against static discharges by bonding and grounding equipment.

No smoking.



Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture.

Avoid exposure - obtain special instructions before use.

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

Ensure good ventilation at the workplace

Prohibited equipment and procedures :

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

Do not breathe fumes, vapour, spray.



7.2. Conditions for safe storage, including any incompatibilities

Store between 5°C and 40°C in a dry, well ventilated place.

Only use hydrocarbon-resistant containers, joints and pipes.

Storage

Keep out of reach of children.

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

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.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m ³ :	VME-ppm :	VLE-mg/m ³ :	VLE-ppm :	Notes :
111-77-3	50.1	10	-	-	Peau
112-34-5	67.5	10	101.2	15	-

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME :	Excess	Notes
111-46-6		10 ppm 44 mg/m ³		4(II)
111-77-3		10 ppm 50 mg/m ³		
112-34-5		10 ppm 67 mg/m ³		1,5 (I)

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
111-77-3	10	50.1	-	-	*, R3	84
112-34-5	10	67.5	15	101.2	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
111-46-6	23 ppm 101 mg/m ³	- ppm - mg/m ³			
111-77-3	10 ppm 50,1 mg/m ³	- ppm - mg/m ³		Sk	
112-34-5	10 ppm 67,5 mg/m ³	15 ppm 101,2 mg/m ³			

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

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Final use:

Exposure method:

Potential health effects:

DNEL :

Workers.

Dermal contact.

Long term systemic effects.

20 mg/kg de poids corporel/jour

Exposure method:

Inhalation.

Potential health effects: Short term local effects.
DNEL : 101.2 mg de substance/m3

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 67 mg de substance/m3

Final use: **Consumers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 710 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Short term local effects.
DNEL : 50.6 mg de substance/m3

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 34 mg de substance/m3

2-(2-METHOXYETHOXY)ETHANOL (CAS: 111-77-3)

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 0.53 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 50.1 mg de substance/m3

Final use: **Consumers.**
Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 1.5 mg/kg de poids corporel/jour

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 0.27 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 25 mg de substance/m3

2,2'-OXYBIS(ETHANOL) (CAS: 111-46-6)

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 106 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 60 mg de substance/m3

Final use: **Consumers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 53 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 12 mg de substance/m3

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (CAS: 143-22-6)

Final use: **Workers.**

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 50 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 195 mg de substance/m3

Final use:**Consumers.**

Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 2.5 mg/kg de poids corporel/jour

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 25 mg/kg de poids corporel/jour

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 117 mg de substance/m3

Predicted no effect concentration (PNEC):**2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)**

Environmental compartment: Soil.
PNEC : 0.4 mg/l

Environmental compartment: Fresh water.
PNEC : 1 mg/l

Environmental compartment: Sea water.
PNEC : 0.1 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 3.9 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 4 mg/l

Environmental compartment: Marine sediment.
PNEC : 0.4 mg/l

Environmental compartment: Waste water treatment plant.
PNEC : 200 mg/l

2-(2-METHOXYETHOXY)ETHANOL (CAS: 111-77-3)

Environmental compartment: Soil.
PNEC : 2.44 mg/kg

Environmental compartment: Fresh water.
PNEC : 12 mg/kg

Environmental compartment: Sea water.
PNEC : 1.2 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 12 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 44.4 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.44 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 10000 mg/l

2,2'-OXYBISETHANOL (CAS: 111-46-6)

Environmental compartment: Soil.
PNEC : 1.53 mg/kg

Environmental compartment: Fresh water.
PNEC : 10 mg/l

Environmental compartment: Sea water.
PNEC : 1 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 10 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 20.9 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 199.5 mg/l

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL (CAS: 143-22-6)

Environmental compartment: Soil.
PNEC : 0.45 mg/kg

Environmental compartment: Fresh water.
PNEC : 1.5 mg/l

Environmental compartment: Sea water.
PNEC : 0.25 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 5.0 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 5.77 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.13 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 200 mg/l

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, if possible with extractor fans at work posts and appropriate general extraction.
Personnel shall wear regularly laundered overalls.

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 with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

Recommended properties :

- Impervious gloves in accordance with standard EN374

- 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.

- Respiratory protection

Breathing apparatus only when aerosol or spray are formed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Fluid liquid.
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Important health, safety and environmental information

pH :	Not stated.
	Slightly basic.
Boiling point/boiling range :	206 °C.
Flash Point Interval :	FP > 100°C.
Vapour pressure (50°C) :	Not relevant.
Density :	> 1
Water solubility :	Soluble.
Viscosity :	5 à 10 cSt à 20°C
Self-ignition temperature :	301 °C.
Decomposition point/decomposition range :	301 °C.

9.2. Other information

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.

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.

10.4. Conditions to avoid

Keep away from heat and from sources of ignition

Take precautionary measures against static discharges.

10.5. Incompatible materials

Strong oxidants

Acids

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.
Splashes in the eyes may cause irritation and reversible damage
May cause severe damage to organs in the event of repeated or prolonged exposure.

11.1.1. Substances

No toxicological data available for the substances.


11.1.2. Mixture**Acute toxicity :**

Oral route : No observed effect.
Species : Rat
LD50 > 5000 mg/kg

Dermal route : No observed effect.
Species : Rabbit
2,000 < LD50 <= 5000 mg/kg

Skin corrosion/skin irritation :

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non allergic contact dermatitis and absorption through the skin.

 **Serious damage to eyes/eye irritation :**

Mild eye irritation

Aspiration hazard :

"Inhalation of vapours may cause irritation of the respiratory system in very susceptible persons."
May cause lung damage if swallowed

SECTION 12 : ECOLOGICAL INFORMATION**12.1. Toxicity****12.1.1. Substances**

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Fish toxicity : LC50 = 1300 mg/l
Species : Lepomis macrochirus
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 2850 mg/l
Species : Daphnia magna
Duration of exposure : 24 h

Algae toxicity : ECr50 >= 100 mg/l
Species : Desmodesmus subspicatus
Duration of exposure : 96 h
OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

Aquatic plant toxicity : ECr50 >= 100 mg/l

12.1.2. Mixtures

LC50 > 100 mg/l
Duration of exposure : 96 h

12.2. Persistence and degradability**12.2.1. Substances**

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

12.2.2. Mixtures

Rapidly degradable.

Biodegradability :

12.3. Bioaccumulative potential**12.3.2. Mixtures**

Octanol/water partition coefficient :

log K_{ow} < 3.

Does not have the potential for bioconcentration.



12.4. Mobility in soil

Water soluble

Mobile in soil

12.5. Results of PBT and vPvB assessment

No data available.



12.6. Other adverse effects

Do not dispose of the product in the natural environment, effluents or surface waters.



German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 1 : Slightly 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.

Recycle or dispose of waste in compliance with current legislation, preferably 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.



Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

16 01 13 * brake fluids



SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.



14.1. UN number

-



14.2. UN proper shipping name

-



14.3. Transport hazard class(es)

-



14.4. Packing group

-



14.5. Environmental hazards

-



14.6. Special precautions for user

-

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. 487/2013.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

Containers to be fitted with a tactile warning of danger (see EC Regulation No. 1272/2008, Annex II, Part 3).

- Particular provisions :

No data available.



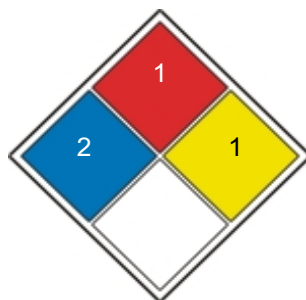
- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 1 : Slightly hazardous for water.



- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=2 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



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 :

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure .

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

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

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

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

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS07 : Exclamation mark

GHS08 : Health hazard

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.