

SR GREENPOXY 28 - 2041



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 : SR GREENPOXY 28
Product code : 2041.
EPOXY RESIN

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

Use : binder

1.3. Details of the supplier of the safety data sheet

Registered company name : SICOMIN Composites.
Address : 31 avenue de la Lardiere - BP 23.13161.Chateauneuf les Martigues.France.
Telephone : +33 (0)4 42 42 30 20. Fax : +33 (0)4 42 81 29 29.
e-mail: composites@sicomin.com
Site web : <http://www.sicomin.com>

1.4. Emergency telephone number :

Association/Organisation : INRS / ORFILA tél: +33(0)1.45.42.59.59 - (FRANCE) .

Other emergency numbers

Health and Safety Executive (HSE) Chemicals Regulation Directorate - Telephone: +44 151 951 3317

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Skin irritation, Category 2 (Skin Irrit. 2, H315).
Eye irritation, Category 2 (Eye Irrit. 2, H319).
Skin sensitisation, Category 1 (Skin Sens. 1, H317).
Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

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

Hazard pictograms :



GHS07



GHS09

Signal Word :

WARNING

Product identifiers :

EC 500-033-5

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES
EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700)

Additional labeling :

EUH205

Contains epoxy constituents. May produce an allergic reaction.

Hazard statements :

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

H319

Causes serious eye irritation.

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| | |
|---|--|
| H411 | Toxic to aquatic life with long lasting effects. |
| Precautionary statements - Prevention : | |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statements - Response : | |
| P302 + P352 | IF ON SKIN: Wash with plenty of water/... |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

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 satisfies 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: 25068-38-6 EC: 500-033-5 REACH: 01-2119456619-26-XXXX PRODUIT DE REACTION:BISPHENOL-A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) | GHS07, GHS09 Wng Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 | | 50 \leq x % < 100 |

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 :

If inhaled, move the patient to fresh air and keep warm and rest.

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.

Flush with large amounts of water. Remove contact lenses if the victim is. Continue to rinse. Seek medical attention if symptoms persist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

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

Seek medical attention immediately, showing 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

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Information for the doctor :

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to remain under medical supervision for 48 hours.

Contact a specialist for treatment poisoning if large quantities have been ingested or inhaled.

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

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)

5.3. Advice for firefighters

Firefighters should wear suitable protective clothing and a respirator mask with self- full operated in positive pressure mode.

Wear conform with the European standard EN 469.

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

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

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.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention :

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.

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Avoid skin and eye contact with this mixture.

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.

Packaging

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

7.3. Specific end use(s)

Binder

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

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

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Dermal contact.
Short term systemic effects.
8.3 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
8.3 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Short term systemic effects.
12.3 mg of substance/m3

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term systemic effects.
12.3 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.

Ingestion.
Short term systemic effects.
0.75 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Ingestion.
Long term systemic effects.
0.75 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Short term systemic effects.
3.6 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

Dermal contact.
Long term systemic effects.
3.6 mg/kg body weight/day

Exposure method:
Potential health effects:

Inhalation.
Short term systemic effects.

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| | |
|---------------------------|-----------------------------|
| DNEL : | 0.75 mg of substance/m3 |
| Exposure method: | Inhalation. |
| Potential health effects: | Long term systemic effects. |
| DNEL : | 0.75 mg of substance/m3 |

Predicted no effect concentration (PNEC):

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

| | |
|--------------------------------------|---|
| Environmental compartment: PNEC : | Soil. 0.05 mg/kg |
| Environmental compartment: PNEC : | Fresh water. 3 µg/l |
| Environmental compartment: PNEC : | Sea water. 0.3 µg/l |
| Environmental compartment: PNEC : | Intermittent waste water. 0.013 mg/l |
| Environmental compartment: PNEC : | Fresh water sediment. 0.5 mg/kg |
| Environmental compartment: PNEC : | Marine sediment. 0.5 mg/kg |
| Environmental compartment: PNEC : | Waste water treatment plant. 10 mg/l |

8.2. Exposure controls

Use only with adequate ventilation or provided with ventilation at the source.

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

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.

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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 :

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

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

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

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

Attention! If the protection group is insufficient.

Mask with filter type A, B, E, K, P for mixing with the hardener

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :

Viscous liquid.

Color:

colorless to pale yellow

Important health, safety and environmental information

pH :

Not relevant.

Boiling point/boiling range :

Not relevant.

Flash Point Interval :

FP > 100°C.

Vapour pressure (50°C) :

Not relevant.

Density :

env. 1.17 g/cm³ @ 20°C

Water solubility :

Insoluble.

Viscosity :

9 500 ± 1 500 mPa.s @ 25°C

Melting point/melting range :

Not relevant.

Self-ignition temperature :

Not relevant.

Decomposition point/decomposition range :

Not relevant.

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

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

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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 cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

May cause an allergic reaction by skin contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar preparations, this preparation may be a skin sensitiser and a respiratory tract sensitiser as well as an irritant.

Constituents with a low molecular weight irritate the eyes, mucous membranes and the skin

Repeated contact with the skin may cause irritation and hypersensitisation, possibly in combination with other epoxide compounds.

11.1.1. Substances

Acute toxicity :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Oral route : LD50 > 2000 mg/kg
Species : Rat

Dermal route : LD50 > 2000 mg/kg
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/skin irritation :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Species : Rabbit
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

May cause an allergic skin reaction.

Local lymph node stimulation test : Sensitiser.
Species : Mouse
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Guinea Pig Maximisation Test (GMPT) : Sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Buehler Test : Sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Ames test (in vitro) : Positive.

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With or without metabolic activation.
Species : S. typhimurium TA1535

Carcinogenicity :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Rat
OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicant :

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

No toxic effect for reproduction
Study on development : Species : Rat
OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

11.1.2. Mixture

Respiratory or skin sensitisation :

Contains epoxy compounds. May cause an allergic reaction.

SECTION 12 : ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.
The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

Fish toxicity : LC50 = 1.3 mg/l
Duration of exposure : 96 h
OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity : EC50 = 2.1 mg/l
Duration of exposure : 48 h
OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

NOEC = 0.3 mg/l
Duration of exposure : 21 days
OECD Guideline 211 (Daphnia magna Reproduction Test)

Algae toxicity : ECr50 > 11 mg/l
Duration of exposure : 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)

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

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12.3. Bioaccumulative potential

12.3.1. Substances

PRODUIT DE REACTION:BISPHENOL- A-SUR-EPICHLORHYDRINE. RESINES EPOXYDIQUES(POIDS MOLECULAIRE MOYEN<700) (CAS: 25068-38-6)
Octanol/water partition coefficient : log K_{ow} = 3

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : 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.

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 2015 - IMDG 2014 - ICAO/IATA 2016).

14.1. UN number

3082

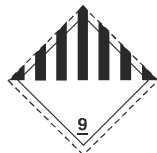
14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(produit de reaction:bisphenol- a-sur-epichlorhydrine. resines epoxydiques(poids moleculaire moyen<700))

14.3. Transport hazard class(es)

- Classification :



9

14.4. Packing group

III

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14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

| ADR/RID | Class | Code | Pack gr. | Label | Ident. | LQ | Provis. | EQ | Cat. | Tunnel |
|---------|-------|------|----------|-------|--------|-----|-----------------|----|------|--------|
| | 9 | M6 | III | 9 | 90 | 5 L | 274 335 375 601 | E1 | 3 | E |

Not subject to this regulation if Q <= 5 l / 5 kg (ADR 3.3.1 - DS 375)

| IMDG | Class | 2°Label | Pack gr. | LQ | EMS | Provis. | EQ |
|------|-------|---------|----------|-----|---------|-------------|----|
| | 9 | - | III | 5 L | F-A,S-F | 274 335 969 | E1 |

Not subject to this regulation if Q <= 5 l / 5 kg (IMDG 3.3.1 - 2.10.2.7)

| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo | note | EQ |
|------|-------|---------|----------|----------|----------|-------|-------|---------------------|----|
| | 9 | - | III | 964 | 450 L | 964 | 450 L | A97 A158 A197 | E1 |
| | 9 | - | III | Y964 | 30 kg G | - | - | A97 A158 A197 | E1 |

Not subject to this regulation if Q <= 5 l / 5 kg (IATA 4.4.4 - DS A197)

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. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

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:

No data available.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : 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=3 Instability/Reactivity=1 Specific Risk=none



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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 :

| | |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

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

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.