

DS 40 DOSE**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 : DS 40 DOSE

Product code : 10011

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.3. Details of the supplier of the safety data sheet**

Registered company name : IPC

10 Quai Malbert - 29200 BREST France

Tél : +33(0)2.98.43.45.44 - Fax : +33 (0)2.98.44.22.53

ipc@groupe-ipc.com

1.4. Emergency telephone number : 01 45 42 59 59.

Association/Organisation : INRS.

>SECTION 2 : HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****In compliance with EC regulation No. 1272/2008 and its amendments.**

Substance that is corrosive to metals, Category 1 (Met. Corr. 1, H290).

Skin corrosion, Category 1A (Skin Corr. 1A, H314).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

2.2. Label elements**> In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS05

Signal Word :

DANGER

Product identifiers :

EC 231-639-5

SULPHURIC ACID

EC 200-898-6

METHANESULPHONIC ACID

Hazard statements :

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

Precautionary statements - Prevention :

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

P301 + P330 + P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338

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

P310

Immediately call a POISON CENTER/doctor/...

Precautionary statements - Disposal :

P501

Dispose of contents/container to ...

DS 40 DOSE**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 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 $\geq 0.1\%$ 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	%
INDEX: 016_020_00_8 CAS: 7664-93-9 EC: 231-639-5 REACH: 01-2119458838-20-XXXX	GHS05 Dgr Skin Corr. 1A, H314	B [i]	50 $\leq x \% < 100$
SULPHURIC ACID			
INDEX: 607_145_00_4 CAS: 75-75-2 EC: 200-898-6 REACH: 01-2119491166-34	GHS07, GHS05 Dgr Met. Corr. 1, H290 Acute Tox. 4, H302 Acute Tox. 4, H312		10 $\leq x \% < 25$
METHANESULPHONIC ACID	Skin Corr. 1B, H314 STOT SE 3, H335		

Specific concentration limits:

Identification	Specific concentration limits	ATE
INDEX: 016_020_00_8 CAS: 7664-93-9 EC: 231-639-5 REACH: 01-2119458838-20-XXXX		inhalation: ATE = 375 mg/l (dust/mist) oral: ATE = 2140 mg/kg BW
SULPHURIC ACID		
INDEX: 607_145_00_4 CAS: 75-75-2 EC: 200-898-6 REACH: 01-2119491166-34		oral: ATE = 649 mg/kg BW
METHANESULPHONIC ACID		

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.

4.1. description of first aid measures**In the event of splashes or contact with eyes :**

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

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin :

Remove any soiled or splashed clothing immediately.

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

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.

DS 40 DOSE**In the event of swallowing :**

- Do not give the patient anything orally.
- 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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media**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.

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

Neutralise with an alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

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.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

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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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)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limits :**

- European Union :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
7664-93-9 SULPHURIC ACID ...%	0.05	-	-	-	-

- UK :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7664-93-9 SULPHURIC ACID ...%	0.05 mg/m3				

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

METHANESULPHONIC ACID (CAS: 75-75-2)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

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

Exposure method:
Potential health effects:
DNEL :

Inhalation.
Long term local effects.
2.89 mg of substance/m3

Final use:

Exposure method:
Potential health effects:
DNEL :

Consumers.

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

Exposure method:
Potential health effects:
DNEL :

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

Exposure method:
Potential health effects:
DNEL :

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

SULPHURIC ACID ...% (CAS: 7664-93-9)

Final use:

Exposure method:
Potential health effects:
DNEL :

Workers.

Inhalation.
Long term local effects.
0.05 mg of substance/m3

Exposure method:
Potential health effects:

Inhalation.
Short term local effects.

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DNEL : 0.1 mg of substance/m3

Predicted no effect concentration (PNEC):

METHANESULPHONIC ACID (CAS: 75-75-2)

Environmental compartment: Soil.
PNEC : 0.00183 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.012 mg/l

Environmental compartment: Sea water.
PNEC : 0.0012 mg/l

Environmental compartment: Intermittent waste water.
PNEC : 0.12 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.0251 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 100 mg/l

SULPHURIC ACID ...% (CAS: 7664-93-9)

Environmental compartment: Fresh water.
PNEC : 0.0025 mg/l

Environmental compartment: Sea water.
PNEC : 0.00025 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 0.002 mg/kg

Environmental compartment: Marine sediment.
PNEC : 0.002 mg/kg

Environmental compartment: Waste water treatment plant.
PNEC : 8.8 mg/l

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 with protective sides accordance with standard ISO 16321.

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

Prescription glasses are not considered as protection.

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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 EN ISO 374-1.

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))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

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

N/A

Odour

Odour threshold : Not stated.

Melting point

Melting point/melting range : Not specified.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not specified.

> 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 : Not relevant.

Auto-ignition temperature

Self-ignition temperature : Not specified.

> Decomposition temperature

Decomposition point/decomposition range : Not specified.

DS 40 DOSE**|> pH**

pH : 0.50 +/-0.5.
Strongly acidic.
pH (aqueous solution) : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Water solubility : Dilutable.
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 : 1.766

Relative vapour density

Vapour density : Not stated.

|> Particle characteristics

The mixture does not contain nanoforms.

9.2. Other information

No data available.

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**

Mixture which by chemical action can corrode and even destroy metals.

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

Avoid :

- frost

10.5. Incompatible materials

No data available.

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 hazard classes as defined in Regulation (EC) No 1272/2008****11.1.1. Substances****a) Acute toxicity :**

METHANESULPHONIC ACID (CAS: 75-75-2)

Oral route :

LD₅₀ = 649 mg/kg body weight

Species : Rat

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Inhalation route (Vapours) : LC50 > 1.88 mg/l
Species : Mouse

SULPHURIC ACID ...% (CAS: 7664-93-9)
Oral route : LD50 = 2140 mg/kg body weight
Species : Rat

Inhalation route (Dusts/mist) : LC50 = 375 mg/l

b) Skin corrosion/skin irritation :

No data available.

c) Serious damage to eyes/eye irritation :

No data available.

d) Respiratory or skin sensitisation :

METHANESULPHONIC ACID (CAS: 75-75-2)
Buehler Test : Non-sensitiser.

e) Germ cell mutagenicity :

METHANESULPHONIC ACID (CAS: 75-75-2)
No mutagenic effect.

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 :**

Oral route : No data available.

Dermal route : No data available.

Inhalation route (Dusts/mist) : No data available.

b) Skin corrosion/skin irritation :

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

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.

DS 40 DOSE**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**12.1. Toxicity****12.1.1. Substances****METHANESULPHONIC ACID (CAS: 75-75-2)**

Fish toxicity :

LC50 < 100 mg/l

Species : *Oncorhynchus mykiss*

Duration of exposure : 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity :

EC50 < 100 mg/l

Species : *Daphnia magna*

Duration of exposure : 48 h

OECD Guideline 202 (*Daphnia* sp. Acute Immobilisation Test)

Algae toxicity :

ECr50 < 100 mg/l

Species : *Scenedesmus capricornutum*

Duration of exposure : 72 h

OECD Guideline 201 (Alga, Growth Inhibition Test)

Aquatic plant toxicity :

Species : Others

SULPHURIC ACID ...% (CAS: 7664-93-9)

Fish toxicity :

LC50 = 16 mg/l

Species : *Lepomis macrochirus*

Duration of exposure : 96 h

NOEC = 0.025 mg/l

Species : *Salvelinus fontinalis*

Crustacean toxicity :

EC50 > 100 mg/l

Species : *Daphnia magna*

Duration of exposure : 48 h

NOEC = 0.15 mg/l

Species : Others

Algae toxicity :

ECr50 = 100 mg/l

Species : *Desmodesmus subspicatus*

Duration of exposure : 72 h

DS 40 DOSE**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

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

METHANESULPHONIC ACID (CAS: 75-75-2)

Biodegradability :

Rapidly degradable.

12.3. Bioaccumulative potential**12.3.1. Substances**

METHANESULPHONIC ACID (CAS: 75-75-2)

Octanol/water partition coefficient :

Log Kow = -5.17

OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

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.

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, 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

1760

14.2. UN proper shipping name

UN1760=CORROSIVE LIQUID, N.O.S.

(sulphuric acid , methanesulphonic acid)

14.3. Transport hazard class(es)

- Classification :



8

DS 40 DOSE**14.4. Packing group**

II

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C9	II	8	80	1 L	274	E2	2	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	8	-	II	1 L	F-A. S-B	274	E2	Category B SW2	-

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	II	851	1 L	855	30 L	A3 A803	E2
	8	-	II	Y840	0.5 L	-	-	A3 A803	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.

>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>.

> Ozone-depleting substances (Regulation (EC) No 2024/590).

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 contains at least one substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors:

- Sulphuric acid (CAS 7664-93-9)

The mixture shall not be made available to, introduced into, possessed by or used by members of the general public, either on its own or in mixtures, and for which suspicious transactions and major disappearances and thefts shall be reported within 24 hours.

Under a licensing scheme, a member of the general public obtains and, on application, produces a licence to acquire, introduce, hold or use a restricted explosive precursor.

15.2. Chemical safety assessment

No data available.

DS 40 DOSE**>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 :

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

> Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

LQ : Limited Quantity

EQ : Excepted Quantity

EmS : Emergency Schedule

E : Packing Instruction

NOEC : The concentration with no observed effect.

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

ATE : Acute Toxicity Estimate

BW : Body Weight

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

STEL : Short-term exposure limit

TWA : Time-Weighted Average

VLE : Threshold Limit Value (exposure)

VME : Average Exposure Value.

ADR : Agreement concerning the international carriage of dangerous goods by road.

GHS05 : Corrosion

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 : Water Hazard Class.

> Modification compared to the previous version