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 : SOLIDE DE LAVAGE 2.7KG

Product code : 1335.

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

Tablets dishwasher machine

Professional use

1.3. Details of the supplier of the safety data sheet

Registered company name : ORAPI.

Address : PARC INDUSTRIEL DE LA PLAINE DE L'AIN - 225 ALLEE DES CEDRES.01150.SAINT-VULBAS.FRANCE.

Telephone : 33-(0)4-74-40-20-20. Fax : 33-(0)4-74-40-20-21.

fds@orapi.com

1.4. Emergency telephone number : 33-(0)1-45-42-59-59.

Association/Organisation : INRS .

Other emergency numbers

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

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 1B (Skin Corr. 1B, H314).

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

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).

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

Contact with acids liberates toxic gas (EUH031).

2.2. Label elements

Detergent mixture (see section 15).

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

Hazard pictograms :

GHS05

GHS07

Signal Word :

DANGER

Product identifiers :

EC 229-912-9	DISODIUM METASILICATE
EC 215-687-4	SODIUM SILICATE
EC 220-767-7	TROCLOSENE SODIUM, DIHYDRATE

Hazard statements :

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Precautionary statements - Prevention :

P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
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 or doctor/physician.
P390	Absorb spillage to prevent material damage.

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 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.

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	(EC) 1272/2008	Note	%
CAS: 6834-92-0 EC: 229-912-9 REACH: 01-2119449811-37 DISODIUM METASILICATE	GHS05, GHS07 Dgr Met. Corr. 1, H290 Skin Corr. 1B, H314 STOT SE 3, H335		50 <= x % < 100
CAS: 497-19-8 EC: 207-838-8 REACH: 01-2119485498-19 SODIUM CARBONATE	GHS07 Wng Eye Irrit. 2, H319		2.5 <= x % < 10
CAS: 1344-09-8 EC: 215-687-4 REACH: 01-2119448725-31 SODIUM SILICATE	GHS07, GHS05 Dgr Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335		1 <= x % < 2.5
CAS: 51580-86-0 EC: 220-767-7 REACH: 01-2119489371-33 TROCLOSENE SODIUM, DIHYDRATE	GHS07, GHS09 Wng Acute Tox. 4, H302 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 1, H410 M Chronic = 1 EUH:031		1 <= x % < 2.5
ALCOXYLAT FATTY ALCOHOL, POLYMER	GHS07 Wng Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 3, H412		1 <= x % < 2.5

Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 6834-92-0 EC: 229-912-9 REACH: 01-2119449811-37 DISODIUM METASILICATE		oral: ATE = 1152 mg/kg BW
CAS: 497-19-8 EC: 207-838-8 REACH: 01-2119485498-19 SODIUM CARBONATE		oral: ATE = 2800 mg/kg BW
CAS: 51580-86-0 EC: 220-767-7 REACH: 01-2119489371-33 TROCLOSENE SODIUM, DIHYDRATE	EUH031: C>=10% STOT SE 3: H335 C>= 10%	oral: ATE = 625 mg/kg BW

Information on ingredients :

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

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 :

In the event of massive inhalation of dust, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not absorb nothing by mouth.

Consult a doctor in case of disorder.

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.

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

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

In case of skin contact, rinse thoroughly with water for at least 15 minutes. Consult a doctor.

In the event of swallowing :

Do not give the patient anything orally.

Seek medical attention immediately, showing the label.

In case of accidental ingestion, call a doctor to determine whether monitoring and further treatment in hospital is necessary. Show the label.

DO NOT induce vomiting. Keep at rest.

If swallowed, if the amount is small (not more than one sip), rinse mouth with water and seek medical attention.

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

Treat symptomatically.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- carbon dioxide (CO2)
- powder
- foam
- 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)
- Thermal decomposition of chlorinated derivative. Do not breathe fumes.

5.3. Advice for firefighters

Due to the toxicity of the gases emitted during the thermal decomposition of the products, responders should be equipped with self-contained 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

Avoid any contact with the skin and eyes.

Avoid inhaling dust.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

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

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming).

Disposal must be carried out by an approved recoverer.

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.

Remove contaminated clothing and protective equipment before entering eating areas.

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

Do not breathe dust.

Follow the rules of use in terms of hygiene and safety given the corrosive nature of the product.

Fire prevention :

Handle in well-ventilated areas.

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.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Prohibited equipment and procedures :

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

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

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

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

No data available.

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

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2.3 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	8.11 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	1.15 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.15 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1.99 mg of substance/m3

SODIUM CARBONATE (CAS: 497-19-8)

Final use:	**Workers.**
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	10 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	5 mg of substance/m3

DISODIUM METASILICATE (CAS: 6834-92-0)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	1.49 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	6.22 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	0.74 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	0.74 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	1.55 mg of substance/m3

Predicted no effect concentration (PNEC):

DISODIUM METASILICATE (CAS: 6834-92-0)

Environmental compartment:	Fresh water.
PNEC :	7.5 mg/l
Environmental compartment:	Sea water.
PNEC :	1 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	7.5 mg/l
Environmental compartment:	Waste water treatment plant.
PNEC :	1 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

Prescription glasses are not considered as protection.

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 :

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

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

Wear protective clothing against solid chemicals and particles suspended in the air (type 5) in accordance with standard EN13982-1/A1 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained 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.

- Respiratory protection

Avoid inhaling dust.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149/A1.

Category :

- FFP1

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

- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state :	Solid.

Colour

White

Odour

Odour threshold :	Not stated.

Melting point

Melting point/melting range :	Not relevant.

Freezing point

Freezing point / Freezing range :	Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range :	Not relevant.

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 relevant.

Decomposition temperature

Decomposition point/decomposition range :	Not relevant.

pH

pH (aqueous solution) :	environ 12 à 1%
pH :	Not relevant.

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 :	Not stated.

Relative vapour density

Vapour density :	Not stated.

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

This mixture reacts with acids, releasing toxic gases in dangerous quantities.

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

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

10.4. Conditions to avoid

Avoid :

- formation of dusts
- humidity

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

Keep away from :

- acids

Releases a toxic gas when in contact with acids.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)
- Thermal decomposition of chlorinated derivative. Do not breathe fumes.

SECTION 11 : TOXICOLOGICAL INFORMATION

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

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

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.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

11.1.1. Substances

Acute toxicity :

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

Oral route :	LD50 = 625 mg/kg

SODIUM SILICATE (CAS: 1344-09-8)

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

SODIUM CARBONATE (CAS: 497-19-8)

Oral route :	LD50 = 2800 mg/kg Species : Rat
Dermal route :	LD50 > 2000 mg/kg Species : Rabbit

DISODIUM METASILICATE (CAS: 6834-92-0)

Oral route :	LD50 = 1152 mg/kg Species : Rat
Dermal route :	LD50 > 5000 mg/kg Species : Rat

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

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

12.1.1. Substances

SODIUM CARBONATE (CAS: 497-19-8)

Fish toxicity :	LC50 = 300 mg/l Species : Lepomis macrochirus Duration of exposure : 96 h

DISODIUM METASILICATE (CAS: 6834-92-0)

Fish toxicity :	LC50 = 210 mg/l Species : Brachydanio rerio Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 1700 mg/l Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 = 207 mg/l Species : Scenedesmus subspicatus Duration of exposure : 72 h

SODIUM SILICATE (CAS: 1344-09-8)

Fish toxicity :	LC50 > 1000 mg/l Duration of exposure : 96 h
Crustacean toxicity :	EC50 > 1000 mg/l Duration of exposure : 48 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

ALCOXYLAT FATTY ALCOHOL, POLYMER

Biodegradability :	Rapidly degradable.

TROCLOSENE SODIUM, DIHYDRATE (CAS: 51580-86-0)

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

DISODIUM METASILICATE (CAS: 6834-92-0)

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

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

No data available.

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, 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 2021 - IMDG 2020 - ICAO/IATA 2021).

14.1. UN number or ID number

3262

14.2. UN proper shipping name

UN3262=CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.

(disodium metasilicate, sodium silicate)

14.3. Transport hazard class(es)

- Classification :

8

14.4. Packing group

III

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	8	C6	III	8	80	5 kg	274	E1	3	E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	8	-	III	5 kg	F-A. S-B	223 274	E1	Category A	SGG18 SG35

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	8	-	III	860	25 kg	864	100 kg	A3 A803	E1
	8	-	III	Y845	5 kg	-	-	A3 A803	E1

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. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

- Container information:

No data available.

- Particular provisions :

No data available.

- Labelling for detergents (EC Regulation No. 648/2004,907/2006) :

- 30 % and more : phosphates
- less than 5 % : nonionic surfactants
- less than 5 % : chlorinebased bleaching agents

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.

The use of the preparation is restricted to professional users.

Wording of the phrases mentioned in section 3 :

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Abbreviations :

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.

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

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 : Wassergefahrdungsklasse (Water Hazard Class).

GHS05 : Corrosion

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.