

according to Regulation (EC) No 1907/2006

	Eco D	
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SECTION 1: Identification of the	substance/mixture and of the company/undertaking	
<u>1.1. Product identifier</u> Eco D		
1.2. Relevant identified uses of the	substance or mixture and uses advised against	
Use of the substance/mixture Aqueous sodium bisulphite so solution for transportation and	olution for use as ´stock´solution, for dilution, in preparing non-biocidal, reducing I storage solutions	
Uses advised against No information available.		
1.3. Details of the supplier of the sa	ifety data sheet	
Company name: Street: Place: Telephone: Internet: Responsible Department:	Pall GmbH Phillipp-Reis-Str. 6 D-63303 Dreieich +49 (0) 6103 / 307 -0 www.pall.com Abt.: Quality Management E-Mail (competent person): paul_garland@europe.pall.com	

Poison Center (UK-Wales): +44 (0) 845 / 4647 (24 hours / 7

1.4. Emergency telephone

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Regulation (EC) No. 1272/2008

Special labelling of certain mixtures				
EUH031	Contact with acids liberates toxic gas.			
EUH210	Safety data sheet available on request.			

days)

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Chemical name			
	EC No	Index No	REACH No		
	GHS Classification				
7631-90-5	Sodium bisulphite; sodium hydroge	Sodium bisulphite; sodium hydrogensulphite			
	231-548-0	016-064-00-8	01-2119524563-42		
	Acute Tox. 4; H302 EUH031				

Full text of H and EUH statements: see section 16.



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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off immediately all contaminated clothing and wash it before reuse . If unconscious place in recovery position and seek medical advice. First aider: Pay attention to self-protection!

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

No data available

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings.

In case of fire: Wear self-contained breathing apparatus. Chemical protection clothing

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Remove persons to safety. Personal protection equipment: see section 8 Safe handling: see section 7

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6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Cover drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal. Provide adequate ventilation. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Provide adequate ventilation as well as local exhaustion at critical locations.
Avoid contact with skin, eyes and clothes.
Do not breathe gas/vapour/aerosol.
Personal protection equipment: see section 8

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

Hints on joint storage

To follow: TRGS 510

Keep away from food, drink and animal feeding stuffs. storage temperature: 10 - 40 $^\circ \rm C$

Further information on storage conditions

Keep away from: Frost

Unsuitable container/equipment material: Light metal

7.3. Specific end use(s)

Cleaning agent, alkaline

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7631-90-5	Sodium hydrogen sulphite	-	5		TWA (8 h)	WEL



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DNEL/DMEL values

CAS No	Substance		-	
DNEL type		Exposure route	Effect	Value
7631-90-5	Sodium bisulphite; sodium hydrogensulphite			-
Worker DNEL, long-term inhalation systemic 246 mg/m³				246 mg/m³
Consumer DNE	EL, long-term	oral	systemic	9,5 mg/kg bw/day
Consumer DNE	EL, long-term	inhalation	systemic	73 mg/m³
Consumer DNE	EL, long-term	oral	systemic	9,5 mg/kg bw/

PNEC values

CAS No	Substance		
Environmental compartment Value			
7631-90-5	Sodium bisulphite; sodium hydrogensulphite		
Freshwater 1,09 mg/l			
Marine water 0,11 mg/l			
Micro-organism	Micro-organisms in sewage treatment plants (STP) 10,71 mg/l		

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Avoid contact with skin, eyes and clothes. Use protective skin cream before handling the product. Remove contaminated, saturated clothing immediately. When using do not eat, drink, smoke, sniff. Wash hands and face before breaks and after work and take a shower if necessary.

Eye/face protection

Suitable eye protection: goggles, Tightly sealed safety glasses., Face protection umbrella (DIN EN 166)

Hand protection

Tested protective gloves must be worn: EN ISO 374

Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber) PVC (polyvinyl chloride)

Thickness of the glove material >= 0,5 mm

Permeation time (maximum wear time) >= 8 h

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves

mentioned above together with the supplier of these gloves.

Observe the wear time limits as specified by the manufacturer.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Recommendation: Respiratory protection (Filter type: B (DN EN 141))

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	flüssig
Colour:	clear

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Odour:	stinging	
		Test method
pH-Value:	3 - 4	
Changes in the physical state		
Melting point:	-2 °C	
Initial boiling point and boiling range:	100 °C	
Flash point:	not applicable	
Flammability		
Solid: Gas:	not applicable not applicable	
-	The applicable	
Explosive properties not explosive.		
Lower explosion limits:	No data available	
Upper explosion limits:	No data available	
Ignition temperature:	No data available	
Auto-ignition temperature		
Solid:	No data available	
Gas:	No data available No data available	
Decomposition temperature:		
Oxidizing properties No information available.		
Vapour pressure:	No data available	
Density (at 20 °C):	1,08 g/cm³	ISO 387
Water solubility: (at 20 °C)	completely miscible	
Solubility in other solvents No information available.		
Partition coefficient:	No data available	
Viscosity / dynamic: (at 20 °C)	< 5 mPa·s	
Viscosity / kinematic:	No data available	
Vapour density:	No data available	
Evaporation rate:	No data available	
9.2. Other information		

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

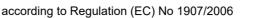
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Alkali (lye)

10.4. Conditions to avoid

No special measures are necessary.





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10.5. Incompatible materials

Alkali (lye) Oxidizing agent

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name	Chemical name							
	Exposure route	Dose		Species	Source	Method			
7631-90-5	Sodium bisulphite; sodiur	Sodium bisulphite; sodium hydrogensulphite							
	oral	LD50 mg/kg	1420	Rat	Study report (1987)	OECD Guideline 401			
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2009)	OECD Guideline 402			

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

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CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
7631-90-5	Sodium bisulphite; sodium hydrogensulphite							
	Acute fish toxicity	LC50 464 mg/l	> 215 - <	96 h	Leuciscus idus	Study report (1989)	other: German industrial standard test g	
	Acute algae toxicity	ErC50 mg/l	43,8	72 h	Desmodesmus subspicatus	Study report (1989)	OECD Guideline 201	
	Acute crustacea toxicity	EC50	89 mg/l	48 h	Daphnia magna	Study report (1990)	other: 79/831/EEC, appendix V, part C	
	Fish toxicity	NOEC mg/l	>= 316	34 d	Danio rerio	Study report (2010)	OECD Guideline 210	
	Crustacea toxicity	NOEC mg/l	> 10	21 d	Daphnia magna	Study report (1993)	OECD Guideline 211	
	Acute bacteria toxicity	(> 1000 r	ng/l)	3 h	activated sludge of a predominantly domestic sewag	Study report (2010)	OECD Guideline 209	

12.2. Persistence and degradability

No information available.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of. Dispose of waste according to applicable legislation.

Cleaning agent: Water (with cleaning agent)

SECTION 14: Transport information

Land transport (ADR/RID)14.1. UN number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.Inland waterways transport (ADN)No dangerous good in sense of this transport regulation.14.1. UN number:No dangerous good in sense of this transport regulation.

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14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
Marine transport (IMDG)		
<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.	
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
Air transport (ICAO-TI/IATA-DGR)		
<u>14.1. UN number:</u>	No dangerous good in sense of this transport regulation.	
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.	
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.	
14.4. Packing group:	No dangerous good in sense of this transport regulation.	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	No	
14.6. Special precautions for user No information available.		
14.7. Transport in bulk according to Anne	x II of Marpol and the IBC Code	
No information available.		
SECTION 15: Regulatory information		
15.1. Safety, health and environmental red	gulations/legislation specific for the substance or mixture	
EU regulatory information		
2004/42/EC (VOC):	0,0 %	
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)	
National regulatory information		
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juv work protection guideline' (94/33/EC). Observe employment restrictio under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.	ns

Water hazard class (D):

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: Sodium bisulphite; sodium hydrogensulphite

1 - slightly hazardous to water

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID:Règlement international conernat le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Refulations by the "International Air Transport Association" (IATA)

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ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) CAS: Chemical Abstracts Service (division of the American Chemical Society) GHS: Globally Harmonized System of Classification and Labelling of Chemicals CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures, LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent EC50: Effectice concentration, 50 percent DNEL: Derived No Effect Level PNEC: Predicted No Effect Concentration PBT: Persistent. Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
EUH031	Contact with acids liberates toxic gas.
EUH210	Safety data sheet available on request.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)



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