

MATERIAL SAFETY DATA SHEET

SODIUM BISULPHATE (Sodium hydrogen sulphate)

NaHSO₄



IRRITANT

1. IDENTIFICATION OF THE SUBSTANCE OR THE PREPARATION AND OF THE COMPANY

Product: SODIUM HYDROGEN SULFATE

Company: PVS Chemicals Belgium n.v.

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Use of the substance or preparation: swimming pools, water treatment, sanitary, etching of metals, the foodstuffs industry.

2. COMPOSITION AND INFORMATION ABOUT THE CONSTITUENTS

Concentration: > 92 %

CAS: 7681-38-1

EINECS 231-665-7

Labelling IDX: 016-046-00-X

R phrases:

R41

also see section 16

Symbol:

Xi

3. IDENTIFICATION OF THE HAZARDS

Fine granules, crystals or powder; irritates the airways.

Highly irritating to the skin, particularly in a humid state, and potentially causing serious damage to the eyes. In water the product decomposes with the formation of sulphuric acid (corrosive).

4. FIRST AID MEASURES

Urgent medical attention is required for anyone suffering from effects of this substance.

Inhalation:

Immediately remove from the place of exposure. Bring the patient into the open air. Immediately seek medical advice.

Contact with skin:

Immediately remove contaminated clothing. Wash contaminated skin with soap and water. If the skin remains red, seek medical assistance.

Contact with the eyes:

Immediately rinse with copious amounts of water for at least 15 minutes. Immediately seek medical advice.

Ingestion:

Do not allow to vomit. Have victim drink much water. Seek medical advice.

5. FIREFIGHTING MEASURES

<i>Suitable extinguishing substances:</i>	Cool receptacles with sprayed water, and if possible remove from the danger zone.
<i>Unsuitable extinguishing substances:</i>	When fighting fires the product must be protected against contact with water. Never use a water spray.
<i>Exposure risks:</i>	Non-flammable substance. Poisonous sulphur dioxide vapours form when heating to decomposition. If this cannot not avoided, account must be taken of the corrosive properties of the resulting fire extinguishing water.
<i>Special protective equipment:</i>	When fighting a fire, always use compressed air breathing apparatus and firefighting clothing.

6. MEASURES WITH THE ACCIDENTAL RELEASE OF THE SUBSTANCE OR PREPARATION

<i>Personal precautions:</i>	In the case of the accidental release of the product, the following measures must be taken: - An emergency team provided with protective clothing and eye and breathing protection proceeds upwind of the incident.
<i>Environmental precautions:</i>	Confine released product with sand or earth and immediately clear into vats or other containers.
<i>Cleaning methods:</i>	Do not rinse away with water, do not drain into sewers or surface water

Also see section 8 and section 13

7. HANDLING AND STORAGE

Storage and handling must take place in conformity with national laws = GO70STORA025

<i>Handling:</i>	Avoid dust formation. Do not inhale dust. Avoid contact with skin, eyes and mucous membranes. If during handling the risk of contact with the product originates, ensure the presence of a shower and eye wash in the proximity.
<i>Storage:</i>	Keep dry and in tightly sealed packaging. Keep containers away from wet floors. Regularly check for damage to packaging. No further special precautions necessary.

8. MEASURES TO CONTROL EXPOSURE/PERSONAL PROTECTION

<i>Control of occupational exposure:</i>	Wear suitable protective clothing and always wear a breathing mask and safety glasses for chemical protection.
<i>Protection of the respiratory organs:</i>	When technical measures (area extraction or local extraction) are insufficient, use equipment for breathing protection that is suitable for the specific conditions of use and that complies with prevailing legislation. When breathing protection is possible using an air filter, use a full face mask provided with filter type ABEKP2. If there is a risk of oxygen deficiency, use appropriate pressurised breathing protection. Always ask the advice of the supplier of the breathing equipment.
<i>Protection of the hands:</i>	Wear gloves (PVS, neoprene). Check with the supplier of the equipment whether the level of protection is sufficient for the specific conditions of use.
<i>Protection of the eyes:</i>	Wear wide view safety goggles or a face mask.
<i>Protection of the skin:</i>	Wear sealed work clothes, chemical resistant. Check with the supplier of the equipment whether the level of protection is sufficient for the specific conditions of use.
<i>Control of environmental exposure:</i>	In the case of the accidental release of the product, the following measures must be taken. <ul style="list-style-type: none">- An emergency team provided with suitable protective clothing and eye and breathing protection proceeds upwind of the incident.- Confine released product with sand or earth and immediately clear into in vats or other containers.- Do not rinse away with water, do not drain into sewers or surface water.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

<i>Appearance and colour:</i>	White or light yellow powder or crystals.
<i>Odour:</i>	Odourless.

Important information with respect to health, safety and the environment

<i>pH (1.2 % solution):</i>	1.3
<i>Boiling point/boiling range:</i>	not applicable
<i>Flash point:</i>	not applicable
<i>Flammability:</i>	not applicable
<i>Explosion properties:</i>	not applicable
<i>Oxidising properties:</i>	not applicable
<i>Vapour pressure:</i>	not applicable

<i>Relative density:</i>	1.4-1.5 kg/l.
<i>Solubility:</i>	
- <i>in water</i>	approximately 1080 g/l 2 at 25 °C
- <i>in grease</i>	not applicable
<i>Partition coefficient: n-octanol/water:</i>	not applicable
<i>Viscosity:</i>	not applicable
<i>Vapour density:</i>	not applicable
<i>Evaporation rate</i>	not applicable

10. STABILITY AND REACTIVITY

<i>Substances to be avoided:</i>	In contact with water the product hydrolyses and forms an acid solution; corrosive.
<i>Dangerous products of decomposition:</i>	Watery solution corrodes metals with release of hydrogen; this gas is flammable and forms an explosive mixture with air.

11. TOXICOLOGICAL INFORMATION

<i>Information about the product:</i>	Watery solution: same properties as H ₂ SO ₄ . Fine granules, crystals or powder. Oral LD50 rat: 2490 mg/kg Skin irritation: non-irritant (rabbit) Eye irritation: highly irritating (rabbit)
<i>Chronic toxicity</i>	Subchronic toxicity: diluted product causes no negative effects. Genotoxicity: negative Chronic toxicity: no information Carcinogenic: no information Reprotoxicity: no information
<i>Experience among persons:</i>	Fine substance that can cause the irritation of the airways, with coughing and the contraction of the airways. In contact with water the product forms sulphuric acid that can cause burns. A watery solution has the same properties as sulphuric acid.

12. ECOLOGICAL INFORMATION

<i>Ecological information:</i>	Toxic to species living in water EC50 (Daphnia magna) 48 hours: 190 mg/l.
<i>Mobility:</i>	Very mobile in the soil
<i>Persistence and decomposition:</i>	No information available
<i>Potential bioaccumulation:</i>	Log Pow: -2,2 (KOWWIN) Little danger of bioaccumulation

13. INSTRUCTIONS FOR DISPOSAL

Disposal must take place in accordance with the applicable European directives and prevailing national legislation. Report incidental losses to the authorities in accordance with local legislation.

14. INFORMATION WITH RESPECT TO TRANSPORTATION

Product not regulated.

15. LEGALLY COMPULSORY INFORMATION

R phrases: R 41: Danger of severe eye damage.
S phrases: S 2: Keep out of the reach of children.
S 24: Avoid contact with the skin.
S 26: In the case of contact with the eyes,
immediately rinse with copious
amounts of water and seek medical
advice.
Symbols: Xi: Irritant
Status information: TSCA (US): OK
AICS (Australia): OK
DSL (Canada): OK
ENCS (Japan): OK
ECL (Korea): OK
PICCS (Philippines): OK

Substance regulated by Dir. 2001/58/EC
Labelling 016-046-00-X/EINECS 231-665-7.
WGK = 1

16. OTHER INFORMATION

This safety sheet supplements but does not replace our technical instructions. The information mentioned has the purpose of assisting the employee to the best possible extent with use of the product. It is provided on the basis of our best experience. However, neither PVS Chemicals Belgium n.v. nor its subsidiaries can guarantee the accuracy or the completeness of this information. All chemical products can entail unforeseen risks, and must be used with care. We cannot guarantee that the abovementioned risks are the only ones that exist. The ultimate choice of product application is therefore the sole responsibility of the user.

Sources: IUCLID: CD-ROM 2000
R phrases: R 41: Danger of severe eye damage.
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