SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identification

Product form: Substance
Substance name: Sodium Metabisulfite
EC Index No: 016-063-00-2
EC No: 231-673-0
CAS No: 7681-57-4
Product code: 256617
Formula: Na2O5S2
Product group: Raw material

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

1.2.1. Relevant identified uses
Main use category: Pharmaceutical
Function or use category: Raw material

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Duchefa Farma BV
A. Hofmanweg 71
2031BH Haarlem - Nederland
T +31(0)23-5319093
farma@duchefa.nl - www.duchefa-farma.com

1.4. Emergency telephone number

Emergency number: Supplier contact information:
+31(0)23-5319093 (M-F 09:00-17:00)
+31(0)6-30109355 (outside office hours)

United Kingdom
Guy's & St Thomas' Poisons Unit
Medical Toxicology Unit,
Centre Hospitalier Universitaire de Constantine
Avonley Road
SE14 5ER London
0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute toxicity (oral), Category 4
Serious eye damage/eye irritation, Category 1

H302
H318
Sodium Metabisulfite
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of hazard classes and H-statements: see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

- GHS05
- GHS07

Signal word (CLP): Danger

Hazard statements (CLP):
- H302 - Harmful if swallowed
- H318 - Causes serious eye damage

Precautionary statements (CLP):
- P280 - Wear eye protection, face protection, protective clothing, protective gloves
- P305 - IF IN EYES: Rinse cautiously with water for several minutes
- P310 - Immediately call a POISON CENTER or doctor/physician

EUH-statements:
- EUH031 - Contact with acids liberates toxic gas

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type: Pharmaceuticals

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metabisulfite</td>
<td>(CAS No) 7681-57-4 (EC No) 231-673-0 (EC Index No) 016-063-00-2</td>
<td>100</td>
<td>Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Assure fresh air breathing.
First-aid measures after skin contact: Rinse with plenty of water. Remove contaminated clothing and shoes.
First-aid measures after eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion: Drink plenty of water. Seek medical attention immediately.
4.2. Most important symptoms and effects, both acute and delayed
No additional information available

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
Suitable extinguishing media : All extinguishing agents can be used.

5.2. Special hazards arising from the substance or mixture
Fire hazard : Sulphur oxides. On exposure to high temperature, may decompose, releasing toxic gases. Nitrogen oxides.
Expiration hazard : Product is not explosive.

5.3. Advice for firefighters
Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Protective equipment : Wear recommended personal protective equipment.

6.1.2. For emergency responders
Protective equipment : Wear suitable protective clothing and eye/face protection.
Emergency procedures : Avoid raising powdered materials into airborne dust. Ensure adequate air ventilation.

6.2. Environmental precautions
Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up
For containment : Avoid raising dust. Ensure adequate ventilation.
Methods for cleaning up : Sweep up dry powder and dispose properly.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : Protect from moisture. Store in a well-ventilated place. Keep container tightly closed.
7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls

Hand protection:

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Permeation</th>
<th>Thickness (mm)</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloves</td>
<td>Nitrile rubber (NBR)</td>
<td>6 (&gt; 480 minutes)</td>
<td>0,11</td>
<td>EN 374</td>
</tr>
</tbody>
</table>

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

Respiratory protection:

Dust production: dust mask with filter type P1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Powder.
Molecular mass : 190.1 g/mol
Colour : Colourless.
Odour : No data available
Odour threshold : No data available
pH : 3.5 - 5
pH solution : 3.5 - 5 50g/l (20 degree celcius)
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 150 °C
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 2.36 g/cm³
Solubility : Water: 650 g/l 20 degree celcius

Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Sodium Metabisulfite
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions.

10.2. Chemical stability
No additional information available

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
High temperature.

10.5. Incompatible materials
acids.

10.6. Hazardous decomposition products
Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Oral: Harmful if swallowed.

<table>
<thead>
<tr>
<th>Sodium Metabisulfite (7681-57-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
pH: 3.5 - 5

Serious eye damage/irritation : Causes serious eye damage.
pH: 3.5 - 5

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
SECTION 12: Ecological information

12.1.  Toxicity

<table>
<thead>
<tr>
<th>Sodium Metabisulfite (7681-57-4)</th>
<th>LC50 fish 1</th>
<th>150 - 220 mg/l 96h Onchorhynchus mykiss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EC50 Daphnia 1</td>
<td>89 mg/l 48h</td>
</tr>
<tr>
<td></td>
<td>EC50 other aquatic organisms 2</td>
<td>56 mg/l 17h Ps. putida</td>
</tr>
</tbody>
</table>

12.2.  Persistence and degradability
No additional information available

12.3.  Bioaccumulative potential
No additional information available

12.4.  Mobility in soil
No additional information available

12.5.  Results of PBT and vPvB assessment
No additional information available

12.6.  Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1.  Waste treatment methods
Sewage disposal recommendations: Do not discharge into drains or the environment. Do not discharge the waste into the drain.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1.  UN number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2.  UN proper shipping name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3.  Transport hazard class(es)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4.  Packing group</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5.  Environmental hazards</td>
<td>Dangerous for the environment: No</td>
</tr>
</tbody>
</table>

14.6.  Special precautions for user

- Overland transport
  No data available

- Air transport
  No data available

14.7.  Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable
SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
Sodium Metabisulfite is not on the REACH Candidate List
Sodium Metabisulfite is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.4</td>
<td>Emergency telephone</td>
<td>Modified</td>
</tr>
<tr>
<td>2</td>
<td>Classification (DSD/DPD)</td>
<td>Removed</td>
</tr>
<tr>
<td>8.2</td>
<td>Hand protection</td>
<td>Modified</td>
</tr>
</tbody>
</table>

Added additional information

Obsolete

Specified material, thickness, etcetera of gloves

Abbreviations and acronyms:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>RID</td>
<td>Regulations concerning the International Carriage of Dangerous Goods by Rail</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Rail</td>
</tr>
<tr>
<td>ADN</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</td>
</tr>
<tr>
<td>CLP</td>
<td>Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</td>
</tr>
</tbody>
</table>

Data sources: Supplier.

Full text of H- and EUH-statements:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<td>Serious eye damage/eye irritation, Category 1</td>
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SDS EU (REACH Annex II) Version 2017

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product