SAFETY DATA SHEET
Sodium Bisulphite 36 - 40 % solution

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

Date issued 19.11.2012

1.1. Product identifier
Product name Sodium Bisulphite 36 - 40 % solution
Synonyms Natriumbisulfitt 36 - 40 % løsning
REACH Reg No 01-2119524563-42
CAS no. 7631-90-5

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
Distributor
Company name Acinor AS
Office address Titangt. 13, NO-1630 Gamle Fredrikstad
Postal address Titangaten 13
Postcode 1630
City Gamle Fredrikstad
Country Norway
Tel 69384082
Fax 69384084
E-mail post@acinor.no
Website http://www.acinor.no
Enterprise no. NO 984 648 324 MVA
Contact person Rolf Egil de Flon

1.4. Emergency telephone number
Emergency telephone Toxic Information: 22 59 13 00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to 67/548/EEC or 1999/45/EC R31
Xn; R22
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Acute tox. 4; H302;
; EUH 031;
Substance / mixture hazardous properties Harmful if swallowed. Contact with acids liberates toxic gas.

2.2. Label elements
Hazard Pictograms (CLP)
Composition on the label: Sodium bisulphite ...%: 36 - 40 %

Signal word: Warning

Hazard statements:
- H302 Harmful if swallowed.
- EUH 031 Contact with acids liberates toxic gas.

Precautionary statements:
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

2.3. Other hazards

PBT / vPvB: PBT/vPvB assessment has not been performed.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Component name</th>
<th>Identification</th>
<th>Classification</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulphite ...%</td>
<td>CAS no.: 7631-90-5</td>
<td>Xn; R22</td>
<td>36 - 40 %</td>
</tr>
<tr>
<td></td>
<td>EC no.: 231-548-0</td>
<td>R31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index no.: 016-064-00-8</td>
<td>Acute tox. 4; H302</td>
<td></td>
</tr>
<tr>
<td>Synonyms: Sodium hydrogen sulphite</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Component comments: See section 16 for explanation of H- and R-phrases listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General: If in doubt, seek medical advice.

Inhalation: Fresh air and rest. Get medical attention if any discomfort continues.

Skin contact: Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention.

Ingestion: Do not induce vomiting. Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Information for health personnel: Treat Symptomatically.

Acute symptoms and effects: Harmful if swallowed. Inhalation: May cause respiratory irritation. The product may irritate skin and cause itching, burning and redness. May cause eye irritation. Symptoms may be stinging pain and redness in the eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Other Information: No specific treatment required, see section 4.1.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Dry-powder, carbon dioxide (CO2), water mist, foam.

Improper extinguishing media: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards: The product is not classified as flammable.

Hazardous combustion products: Sulphurous gases (SOx).

5.3. Advice for firefighters

Personal protective equipment: Use compressed air equipment when the product is involved in fire. In case of evacuation, an approved protection mask should be used. See also section...
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions Use protective equipment as referred to in section 8.
Avoid inhalation of vapours and spray mist and contact with skin and eyes.

6.2. Environmental precautions
Environmental precautions Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up
Methods for cleaning Absorb in vermiculite, dry sand or earth and place into containers. Collect in a suitable container and dispose as hazardous waste according to section 13.
Cleaning up Limit spread of spilled material.

6.4. Reference to other sections
Other instructions See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Handling Use protective equipment as referred to in section 8.
Provide adequate ventilation.
Avoid spilling, skin and eye contact.
Avoid inhalation of vapours and spray mists.
Change contaminated clothing.

Protective Measures
Advice on general occupational hygiene Wash hands at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke during work.

7.2. Conditions for safe storage, including any incompatibilities
Storage Store dry and cool in a well ventilated area. Store in tightly closed container.
Conditions To Avoid Avoid heat.
Packaging compatibilities Store in original container.
Hints on storage assembly Keep away from: Acids. Oxidising material.

7.3. Specific end use(s)
Specific use(s) See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure limit values

<table>
<thead>
<tr>
<th>Component name</th>
<th>Identification</th>
<th>Value</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulphite ...%</td>
<td>CAS no.: 7631-90-5</td>
<td>8 h.: 5 mg/m3</td>
<td>2011</td>
</tr>
<tr>
<td></td>
<td>EC no.: 231-548-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index no.: 016-064-00-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synonyms: Sodium hydrogen</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sulphite</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Occupational exposure controls Provide adequate ventilation. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory protection In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).
If risk of inhalation of sulfur dioxide: Use respiratory equipment with combination filter, type E2/P2.

**Hand protection**

<table>
<thead>
<tr>
<th>Hand protection</th>
<th>Use chemical resistant gloves.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable materials</td>
<td>Butyl rubber.</td>
</tr>
<tr>
<td>Breakthrough time</td>
<td>Penetration time is not known. The recommended material of gloves is recommended after a study of the single components in the product.</td>
</tr>
</tbody>
</table>

**Additional hand protection measures**

- Change gloves frequently.

**Eye / face protection**

| Eye protection | Wear approved safety goggles. |

**Skin protection**

| Skin protection (other than of the hands) | Wear appropriate protective clothing to protect against possible skin contact. |

**Additional skin protection measures**

- Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet or contaminated.

**Appropriate environmental exposure control**

| Environmental exposure controls | Do not allow to enter into sewer, water system or soil. See also section 12. |

**Other Information**

| Other Information | The listed protective equipment is a recommendation. A risk assessment of the actual risk may lead to other requirements. Emergency shower and eye wash facilities should be available at the workplace. |

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Fluid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Colourless to pale yellow.</td>
</tr>
<tr>
<td>Odour</td>
<td>Sulphur.</td>
</tr>
<tr>
<td>Comments, Odour limit</td>
<td>Not known.</td>
</tr>
<tr>
<td>pH (as supplied)</td>
<td>Value: 3.7-4.5</td>
</tr>
<tr>
<td>Comments, pH (as supplied)</td>
<td>Concentrated solution.</td>
</tr>
<tr>
<td>Melting point/melting range</td>
<td>Value: &lt; 2 °C</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>Value: 98 °C</td>
</tr>
<tr>
<td>Comments, Boiling point / boiling range</td>
<td>Pressure: 1013 hPa.</td>
</tr>
<tr>
<td>Comments, Flash point</td>
<td>Not known.</td>
</tr>
<tr>
<td>Comments, Evaporation rate</td>
<td>Not known.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not known.</td>
</tr>
<tr>
<td>Comments, Explosion limit</td>
<td>Not known.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Value: 27 mbar</td>
</tr>
<tr>
<td>Comments, Vapour density</td>
<td>Not known.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Value: 1.32-1.37 g/cm³</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble.</td>
</tr>
<tr>
<td>Comments, Partition coefficient: n-octanol / water</td>
<td>Not known.</td>
</tr>
<tr>
<td>Comments, Spontaneous combustibility</td>
<td>Not known.</td>
</tr>
<tr>
<td>Comments, Decomposition temperature</td>
<td>Not known.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Value: ~ 4 mPas</td>
</tr>
</tbody>
</table>

**Physical hazards**

<table>
<thead>
<tr>
<th>Test temperature: 20 °C</th>
<th></th>
</tr>
</thead>
</table>
Explosive properties: Not known.
Oxidising properties: Not known.

**9.2. Other information**

**Other physical and chemical properties**
Physical and chemical properties: Not known.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**
Reactivity: Data lacking.

**10.2. Chemical stability**
Stability: Stable under normal temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions**
Possibility of hazardous reactions: Arise in contact with incompatible materials (section 10.5) and inappropriate conditions (section 10.4). Contact with acids liberates toxic gas.

**10.4. Conditions to avoid**
Conditions to avoid: Avoid heat.

**10.5. Incompatible materials**
Materials to avoid: Acids. Avoid contact with oxidising agents.

**10.6. Hazardous decomposition products**
Hazardous decomposition products: None under normal conditions. See also section 5.2.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicological Information:**

- **LD50 oral**
  - Value: 1420 mg/kg
  - Test animal species: Rat
  - Comments: CAS-nr.:7631-90-5.

**Potential acute effects**

- **Inhalation**
  - Vapour may irritate respiratory system or lungs.

- **Skin contact**
  - May cause irritation.

- **Eye contact**
  - May irritate and cause redness and pain.

- **Ingestion**
  - Harmful if swallowed.

**Delayed effects / repeated exposure**

- **Sensitisation**
  - None of the substances mentioned in section 3 is considered to have sensitizing effects according to current labelling rules.

**Carcinogenic, Mutagenic or Reprotoxic**

- **Carcinogenicity**
  - None of the substances mentioned in section 3 is considered as carcinogenic according to current labelling rules.

- **Mutagenicity**
  - None of the substances mentioned in section 3 are considered to have mutagenic or pro-mutagenic effects.

- **Teratogenic properties**
  - None of the substances mentioned in section 3 are considered to cause harm to the unborn child.

- **Reproductive toxicity**
  - None of the substances mentioned in section 3 are considered to have genotoxic effects.

**SECTION 12: Ecological information**

**12.1. Toxicity**

- **Acute aquatic, fish**
  - Value: 240 mg/l
  - Method of testing: LD50
  - Fish, species: Gambusia affinis
Duration: 96 hours

Acute aquatic, Daphnia

Value: 119 mg/l
Method of testing: EC50
Daphnia, species: Daphnia magna
Duration: 48 hours

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability

Persistence and degradability

The product contains inorganic compounds that are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

Not expected to bioaccumulate.

12.4. Mobility in soil

Mobility

Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT assessment results

PBT assessment has not been performed.

vPvB evaluation results

vPvB assessment has not been performed.

12.6. Other adverse effects

Other adverse effects / Remarks

Do not allow to enter into sewer, water system or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal

Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intended as a guide. The code must be chosen by the user, if the use differs from the one mentioned above.

Product classified as hazardous waste

Yes

EWC waste code

EWC: 06 01 06 other acids

NORSAS

7131 Acids, inorganic.

SECTION 14: Transport information

14.1. UN number

Comment

Not considered as dangerous goods under UN, IMO, ADR/RID or IATA/ICAO regulations.

14.2. UN proper shipping name

Comment

Not relevant.

14.3. Transport hazard class(es)

Comment

Not relevant.

14.4. Packing group

Comment

Not relevant.

14.5. Environmental hazards

Comment

Not relevant.

14.6. Special precautions for user

Special precautions for user

Not relevant.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Other applicable information.

Other applicable information.

Not relevant.

SECTION 15: Regulatory information

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

References (laws/regulations)

Norwegian regulation on classification and labeling of dangerous chemicals.
Valid from June 21, 2010.
Regulation on classification, labeling and packaging of substances and mixtures (CLP) dated 16.06.2012.
Administrative norms for pollution of the atmosphere, the latest edition, from Norwegian labour inspection authority
Dangerous Goods regulations

The Safety Data regulations is based on information provided by the producer.

15.2. Chemical safety assessment

Chemical safety assessment has been carried out
No

SECTION 16: Other information

Supplier's notes
The information contained in this SDS must be made available to all those who handle the product.

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
Acute tox. 4; H302; 
; EUH 031;

List of relevant R phrases (under headings 2 and 3).
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.

List of relevant H-phrases (Section 2 and 3).
EUH 031 Contact with acids liberates toxic gas.
H302 Harmful if swallowed.

Abbreviations and acronyms used
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%.
EC50: Median Effective Concentration, required to induce a 50% effect

Sources of key data used to compile the safety data sheet
Suppliers Safety data sheet dated: 06.01.2011

Information which has been added, deleted or revised
New Safety Data Sheet.

Checking quality of information
This SDS is quality controlled by National Institute of Technology in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2008.

Responsible for safety data sheet
Acinor AS

Prepared by
National Institute of Technology as, Norway v/ Camilla M. Ormset