Technical Datasheet:

Sodium Metabisulphite
food grade, E223

**Identification:**
- CAS-No.: 7681-57-4
- Mol. Wght.: 190,10 g/mol
- Formula: Na₂S₂O₅
- REACH Registration-No.: 01-2119531326-45-XXXX

**Description:**
Sodium Metabisulphite are white, coarse-grain crystals with a slight odour of SO₂.
It is readily soluble in water. The aqueous solution is in the form of sodium hydrogensulphite.
Sodium Metabisulphite decomposes at temperatures above 120 °C.
It rapidly absorbs moisture if not stored in tightly closed containments and oxidizes under the separation of gaseous sulphur dioxide.

**Packing types:**
- 25 kg PE-bags on pallets (48 bags per pallet)
- 1000 kg - 1.250 kg flexible IBCs (Big Bags) with inliner on pallets
  - both packing types are delivered with a cardboard box and shrink foil

**Specification (Spec. 3000):**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>typical value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White, coarse-grain, crystalline</td>
<td>Visual</td>
</tr>
<tr>
<td>SMB content</td>
<td>min. 98 % (w/w)</td>
<td>Titrimetric</td>
</tr>
<tr>
<td>SO₂ content</td>
<td>min. 66.02 % (w/w)</td>
<td>Titrimetric</td>
</tr>
<tr>
<td>Na₂SO₃ (Sod. Sulphite)</td>
<td>max. 1.5 % (w/w)</td>
<td>Titrimetric</td>
</tr>
<tr>
<td>S₂O₅²⁻ (Sod. Thiosulphate)</td>
<td>max. 0.02 % (w/w)</td>
<td>Turbidimetric</td>
</tr>
<tr>
<td>Na₂S₄O₆ (Sod. Sulphate)</td>
<td>max. 2 % (w/w)</td>
<td>Turbidimetric</td>
</tr>
<tr>
<td>Iron content (Fe)</td>
<td>max. 5 ppm</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Heavy metals* (as Pb)</td>
<td>max. 10 ppm</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Chloride content (Cl⁻)</td>
<td>max. 0.02 % (w/w)</td>
<td>Titrimetric</td>
</tr>
<tr>
<td>Arsenic content (As)</td>
<td>max. 0.5 ppm</td>
<td>ICP/AAS**/****</td>
</tr>
<tr>
<td>Lead content (Pb)</td>
<td>max. 0.5 ppm</td>
<td>ICP/AAS**/****</td>
</tr>
<tr>
<td>Cadmium content (Cd)</td>
<td>max. 50 ppb</td>
<td>ICP/AAS**/****</td>
</tr>
<tr>
<td>Selenium content (Se)</td>
<td>max. 0.5 ppm</td>
<td>AAS <strong>/</strong>**</td>
</tr>
<tr>
<td>Insoluble matters in water</td>
<td>none</td>
<td>Gravimetric</td>
</tr>
<tr>
<td>pH Value (10% water solution)</td>
<td>4.0—5.5</td>
<td>pH-Meter</td>
</tr>
<tr>
<td>Mercury content (Hg)</td>
<td>max. 0.1 ppm</td>
<td>ICP/AAS**/****</td>
</tr>
</tbody>
</table>

* Total heavy metals excluding Fe
** Every three months and when raw material(s) source changes
*** I C P: Inducted coupled Plasma // A A S: Atomic Absorption Spectrophotometer
Labelling:

Classification accd. to EC 1272/2008 (CLP)
Acute Tox. 4: H302 Harmful if swallowed.
Eye Dam. 1: H318 Causes serious eye damage.
Contact with acids liberates toxic gas.

Classification accd. to EEC 67/548/EWG
R 22 Harmful if swallowed.
R 31 Contact with acids liberates toxic gas.
R 41 Risk of serious damage to eyes.

Transport:
ADR/RID: —
IMDG: —
IATA: —
Marine pollutant: no

Storage/Handling:
Please store cool and dry and below 25°C at all times as well as at a relative air humidity of max. 45%. These are the best conditions for a shelf life of 24 months. Goods must be stored away from effects of weather (i.e. direct sunlight, rain, etc.) Higher or severe deviating temperatures and/or air humidity can lead to a decrease of the SO$_2$-content and of the pH-value of the aqueous solution. The placing of pallets one above the other supports the process of hardening/caking—therefore, please store the pallets NEXT TO EACH OTHER as far as possible.

Uses/Applications:
SMB is used in the food and beverage industry as a preservative and for treatment of different food stuffs, because it does not effect the taste of the food stuff respectively does not change it. (Subject to laws relating to food production and distribution applicable in the individual countries)
SMB is used in the treatment of waste water due to its excellent ability to remove different types of toxic substances, i.e. oil drilling (off shore) and mining.
Reducing agent in the textile industry and chemical industry.
Bleaching agent for brightening or stain removal in the pulp – paper industry, in the textile industry and other industries.
The photographic industry is using the good performance of SMB as a preservative against oxidization, for stabilizing and for acidification.
In the leather industry SMB is used in the tannery.

SMB complies with the requirements of directive 231/2012/EC, page 73 + 74.