1 Identification of substance:

Product details:
Product name: Sodium tellurite (IV)
Stock number: 41778

Manufacturer/Supplier:
Alfa Aesar, A Johnson Matthey Company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Emergency Phone: (978) 521-6300
CHEMTREC: (800) 424-9300
Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department
Emergency information:
During normal hours the Health, Safety and Environmental Department.
After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:

Chemical characterization:
Description: (CAS#)
Sodium tellurite (IV) (CAS# 10102-20-2), 100%
Identification number(s):
EINECS Number: 233-268-4

3 Hazards identification

Hazard description:

T Toxic

Information pertaining to particular dangers for man and environment
R 25 Toxic if swallowed.
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>3</td>
</tr>
<tr>
<td>FIRE</td>
<td>0</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
</tr>
</tbody>
</table>

Health (acute effects) = 3
Flammability = 0
Reactivity = 0

4 First aid measures

General information
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.

After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

(Contd. on page 2)
5 Fire fighting measures

Suitable extinguishing agents
Product is not flammable. Use fire fighting measures that suit the surrounding fire.

Special hazards caused by the material, its products of combustion or resulting gases:
In case of fire, the following can be released:
Toxic metal oxide fume

Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

Person-related safety precautions:
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

Measures for environmental protection:
Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:
Dispose contaminated material as waste according to item 13.

Additional information:
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Handling
Information for safe handling:
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.

Information about protection against explosions and fires:
The product is not flammable

Storage
Requirements to be met by storerooms and receptacles:
No special requirements.

Information about storage in one common storage facility:
Store away from oxidizing agents.

Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
8 Exposure controls and personal protection

Additional information about design of technical systems:
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Tellurium and tellurium compounds (as Te)

<table>
<thead>
<tr>
<th></th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TLV</td>
<td>0.1</td>
</tr>
<tr>
<td>Austria MAK</td>
<td>0.1</td>
</tr>
<tr>
<td>Belgium TWA</td>
<td>0.1</td>
</tr>
<tr>
<td>Denmark TWA</td>
<td>0.1</td>
</tr>
<tr>
<td>Finland TWA</td>
<td>0.1; 0.3- STEL</td>
</tr>
<tr>
<td>France VME</td>
<td>0.1</td>
</tr>
<tr>
<td>Germany MAK</td>
<td>0.1</td>
</tr>
<tr>
<td>Korea TLV</td>
<td>0.1</td>
</tr>
<tr>
<td>Netherlands MAC-TGG</td>
<td>0.1</td>
</tr>
<tr>
<td>Norway TWA</td>
<td>0.1</td>
</tr>
<tr>
<td>Poland TWA</td>
<td>0.1; 0.03- STEL</td>
</tr>
<tr>
<td>Sweden NGV</td>
<td>0.1</td>
</tr>
<tr>
<td>Switzerland MAK-W</td>
<td>0.1; 0.5-KZG-W</td>
</tr>
<tr>
<td>United Kingdom TWA</td>
<td>0.1</td>
</tr>
<tr>
<td>USA PEL</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Additional information: No data

Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Remove all soiled and contaminated clothing immediately.  
Wash hands before breaks and at the end of work.

Breathing equipment:
Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form:</td>
</tr>
<tr>
<td>Color:</td>
</tr>
<tr>
<td>Odor:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Sublimation temperature / start:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ignition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decomposition temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not determined</td>
</tr>
</tbody>
</table>

(Contd. on page 4)
10 Stability and reactivity

Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored according to specifications.

Materials to be avoided: Oxidizing agents

Dangerous reactions: No dangerous reactions known

Dangerous products of decomposition: Toxic metal oxide fume

11 Toxicological information

Acute toxicity:

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>45 mg/kg (gpg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20 mg/kg (mus)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>83 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>53600 μg/kg (ibt)</td>
<td></td>
</tr>
<tr>
<td>LDLo</td>
<td>30 mg/kg (hm)</td>
<td></td>
</tr>
</tbody>
</table>

Primary irritant effect:
on the skin: Irritant to skin and mucous membranes.
on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Other information (about experimental toxicology):
Tumorigenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed with humans.

Subacute to chronic toxicity:
Tellurium is converted in the body to dimethyl telluride which imparts a garlic-like odor to the breath and sweat. Heavy exposure may result in headache, drowsiness, metallic taste, loss of appetite, nausea, tremors, convulsions, and respiratory arrest. Reproductive effects in laboratory animals have been reported.

Additional toxicological information:
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
**Product name:** Sodium tellurite (IV)

12 **Ecological information:**

**General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 **Disposal considerations**

**Product:**
**Recommendation**
Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings:**
**Recommendation:** Disposal must be made according to official regulations.

14 **Transport information**

**DOT regulations:**

| Hazard class: | 6.1 |
| Identification number: | UN3284 |
| Packing group: | II |
| Proper shipping name (technical name): | TELLURIUM COMPOUND, N.O.S. |
| Label | 6.1 |

**Land transport ADR/RID (cross-border):**

| ADR/RID class: | 6.1 (T5) Toxic substances |
| Danger code (Kemler): | 60 |
| UN-Number: | 3284 |
| Packaging group: | II |
| Description of goods: | 3284 TELLURIUM COMPOUND, N.O.S. (sodium tellurite (IV)) |

**Maritime transport IMDG:**

| IMDG Class: | 6.1 |
| UN Number: | 3284 |
| Label | 6.1 |
| Packaging group: | II |
Material Safety Data Sheet
acc. to OSHA and ANSI

Product name: Sodium tellurite (IV)

Proper shipping name: TELLURIUM COMPOUND, N.O.S.

Air transport ICAO-TI and IATA-DGR:

ICAQ/IATA Class: 6.1
UN/ID Number: 3284
Label: 6.1
Packaging group: II
Proper shipping name: TELLURIUM COMPOUND, N.O.S.

15 Regulations

Product related hazard informations:

Hazard symbols:
T Toxic

Risk phrases:
25 Toxic if swallowed.

Safety phrases:
9 Keep container in a well-ventilated place.
20 When using do not eat or drink.
28 After contact with skin, wash immediately with plenty of water
36/37 Wear suitable protective clothing and gloves.
45 In case of accident or if you feel unwell, seek medical advice immediately.

National regulations
All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

Information about limitation of use:
For use only by technically qualified individuals.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.
Contact: Paul V. Connolly

USA