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

1.1 Product identifier

Trade name Ammonium iodate

Stock number: 14531
CAS Number: 13446-09-8
EC number: 236-592-4

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

Identified use: SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
Thermo Fisher (Kandel) GmbH
Zepelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com
Informing department: Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:
Carechem 24: +44 (o) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant
R36/37/38: Irritating to eyes, respiratory system and skin.
O; Oxidising
R8: Contact with combustible material may cause fire.

Information concerning particular hazards for human and environment:
Not applicable

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS03 GHS07

Signal word Danger

Hazard statements
H272 May intensify fire; oxidiser.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary statements
P221 Take any precaution to avoid mixing with combustibles.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P320 Keep Store away from clothing/combustible materials.
P305+P335+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances

CAS# Designation:
13446-09-8 Ammonium iodate
Identification number(s):
EC number: 236-592-4

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. Seek immediate medical advice.

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

After eye contact
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing
Seek medical treatment.

(Contd. on page 2)
4.2 Most important symptoms and effects, both acute and delayed  No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed  No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
For safety reasons unsuitable extinguishing agents Halocarbon extinguisher

5.2 Special hazards arising from the substance or mixture
This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
If this product is involved in a fire, the following can be released:
Hydrogen iodide (HJ)
Nitrogen oxides (NOx)

5.3 Advice for firefighters

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

6.2 Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Keep away from combustible material.

6.3 Methods and material for containment and cleaning up:
Ensure adequate ventilation.

7.1 Precautions for safe handling
Handle under dry protective gas.
Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.

7.2 Conditions for safe storage, including any incompatibilities
Storage Requirements to be met by storerooms and containers:
No special requirements.
Information about storage in one common storage facility:
Store away from flammable substances.
Store away from reducing agents.
Do not store with organic materials.
Store away from metal powders.
Store away from water.
Store away from oxidising agents.
Further information about storage conditions:
Acts as an oxidizing agent on organic materials such as wood, paper and fats
Take precautions against explosions and fires:
Substance/product can reduce the ignition temperature of flammable substances.
This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

7.3 Specific end use(s)
No further relevant information available.

SECTION 7: Handling and storage

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.

8.1 Control parameters
Components with critical values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures:
The usual precautionary measures should be adhered to when handling the chemicals.
Keep away from foodstuffs, beverages and food.
Immediately remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Breathing equipment: Use breathing protection with high concentrations.
Protection of hands:
Check protective gloves prior to each use for their proper condition.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

8.3 Material of gloves
Impervious gloves
Penetration time of glove material (in minutes) Not determined

SECTION 8: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance: Crystalline
Colour: White
Smell: Odourless
Odour threshold: Not determined.
### Safety data sheet

**Trade name** Ammonium iodate

### 38.0.2

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH-value</strong></td>
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</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
<td>150 °C</td>
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<tr>
<td>Boiling point/Boiling range:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Sublimation temperature / start:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Inflammability (solid, gaseous)</td>
<td>Contact with combustible material may cause fire.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Self-inflammability:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Critical values for explosion:</td>
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</tr>
<tr>
<td>Lower:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Steam pressure:</td>
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</tr>
<tr>
<td>Density at 20 °C</td>
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<tr>
<td>Relative density:</td>
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</tr>
<tr>
<td>Vapour density:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water at 15 °C:</td>
<td>20.6 g/l</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined</td>
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<tr>
<td>Viscosity:</td>
<td></td>
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<tr>
<td>dynamic:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>kinematic:</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

### SECTION 10: Stability and reactivity

**10.1 Reactivity** May intensify fire; oxidiser.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**
- Reacts with strong oxidising agents
- Reacts with reducing agents
- Reacts with flammable substances

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials**
- Flammable substances
- Reducing agents
- Water/moisture
- Oxidising agents
- Organic materials
- Metal powders

**10.6 Hazardous decomposition products**
- Hydrogen iodide (HI)
- Nitrogen oxides (NOX)

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**
- Acute toxicity: No effects known.
- LD/LC50 values that are relevant for classification: No data
- Skin irritation or corrosion: Causes serious eye irritation.
- Eye irritation or corrosion: Causes serious eye irritation.
- Sensitization: No sensitizing effect known.
- Germ cell mutagenicity: No effects known.
- Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
- Reproductive toxicity: No effects known.
- Specific target organ system toxicity - repeated exposure: No effects known.
- Specific target organ system toxicity - single exposure: May cause respiratory irritation.
- Aspiration hazard: No effects known.
- Subacute to chronic toxicity: No effects known.
- Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

### SECTION 12: Ecological information

**12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.

**12.2 Persistence and degradability**
- No further relevant information available.

**12.3 Bioaccumulative potential**
- No further relevant information available.

**12.4 Mobility in soil**
- No further relevant information available.

**Additional ecological information**
- General notes: Do not allow material to be released to the environment without proper governmental permits. Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

**12.6 Other adverse effects**
- No further relevant information available.

### SECTION 13: Disposal considerations

**Recommendation** Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.

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

### SECTION 14: Transport information

**UN-Number**
- ADR, IMDG, IATA UN1479
### Safety data sheet

**Ammonium iodate**

**Trade name** Ammonium iodate

**14.2 UN proper shipping name**
- ADR: OXIDIZING SOLID, N.O.S. (Ammonium iodate)
- IMDG, IATA: OXIDIZING SOLID, N.O.S. (Ammonium iodate)

**14.3 Transport hazard class(es)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>5.1</td>
</tr>
<tr>
<td>IMDG</td>
<td>5.1</td>
</tr>
</tbody>
</table>

**14.4 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

- Not applicable.

**14.5 Environmental hazards:**

- Not applicable.

**14.6 Special precautions for user**
- Warning: Oxidising substances.
- Kemler Number: 50

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

- Not applicable.

**Transport/Additional information:**

**ADR**
- Excepted quantities (EQ): E2
- Limited quantities (LQ): 1 kg
- Transport category: 2
- Tunnel restriction code: E

**UN “Model Regulation”:**
UN1479, OXIDIZING SOLID, N.O.S. (Ammonium iodate), 5.1, II

### SECTION 15: Regulatory information

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

**Australian Inventory of Chemical Substances** Substance is not listed.

**Standard for the Uniform Scheduling of Drugs and Poisons** Substance is not listed.

**National regulations**

- Information about limitation of use:
  - Employment restrictions concerning young persons must be observed.
  - For use only by technically qualified individuals.

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Other regulations, limitations and prohibitive regulations**

**ELINCS (European List of Notified Chemical Substances)** Substance is not listed.

**Substances of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.** Substance is not listed.

**The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.** Substance is not listed.

**Annex XIV of the REACH Regulations (requiring Authorisation for use)** Substance is not listed.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 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 SDS:** Global Marketing Department

**Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- vPvB: very Persistent and very Bioaccumulative
- ACGIH: American Conference of Governmental Industrial Hygienists (USA)
- OSHA: Occupational Safety and Health Administration (USA)
- NTP: National Toxicology Program (USA)
- IARC: International Agency for Research on Cancer
- EPA: Environmental Protection Agency (USA)