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

1.1 Product identifier

Trade name **N-Iodosuccinimide**

Stock number: A14320

CAS Number: 516-12-1

EC number: 208-221-6

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:

Alfa Aesar
Avocado Research Chemicals, Ltd.
Shore Road
Port of Heysham Industrial Park
Heysham Lancashire LA3 2XY
United Kingdom

Office Tel: +44 (0) 1524 850506
Office Fax: +44 (0) 1524 850608
Email: uktech@alfa.com

Informing department: Product safety department.

1.4 Emergency telephone number:

Call Carechem 24 at +44 (0) 1865 407333 (English only); +44 (0) 1235 239670 (Multi-language)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

![GHS07]

- **Acute Tox. 4** H302 Harmful if swallowed.
- **Skin Irrit. 2** H315 Causes skin irritation.
- **Eye Irrit. 2** H319 Causes serious eye irritation.
- **STOT SE 3** H335 May cause respiratory irritation.

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

![GHS07]

Signal word **Warning**

Hazard statements

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P231+P241+P338 If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- 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:** 516-12-1 N-Iodosuccinimide
- **Identification number(s):** EC number: 208-221-6

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**

Immediately 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.

4.2 Most important symptoms and effects, both acute and delayed

- Causes skin irritation.
- Harmful if swallowed.
- Causes serious eye irritation.
- May cause respiratory irritation.

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.

(Contd. on page 2)
5.2 Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
- Carbon monoxide and carbon dioxide
- Hydrogen iodide (HJ)
- Nitrogen oxides (NOx)

5.3 Advice for firefighters
Protective equipment:
- Wear self-contained breathing apparatus.
- Wear full protective suit.

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.
Prevention of secondary hazards: No special measures required.
6.3 Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to section 13.
Ensure adequate ventilation.
6.4 Reference to other sections
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Handle under dry protective gas.
Keep containers tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires: No information known.
7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and containers: Refrigerate
Information about storage in one common storage facility:
Store in the dark.
Protect from heat.
Store away from water.
Store away from strong bases.
Store away from oxidising agents.
Further information about storage conditions:
Store under dry inert gas.
This product is moisture sensitive.
Keep container tightly sealed.
Protect from humidity and keep away from water.
Protect from the effects of light.
Refrigerate
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/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.
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.
Additional information: No data
8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly 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.
Recommended filter device for short term use:
Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.
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.
Material of gloves Nitrile rubber, NBR
Penetration time of glove material (in minutes) 480
Glove thickness 0.11 mm
Eye protection:
Safety glasses
Face protection
Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
General Information
Appearance: Powder
Smell: Odourless
Odour threshold: Not determined.
pH-value: Not applicable.
Change in condition
Melting point/Melting range: ca 196 °C (dec)
Boiling point/Boiling range: Not determined
Sublimation temperature / start: Not determined
Inflammability (solid, gaseous) Not determined.
Ignition temperature: Not determined.
Decomposition temperature: Not determined.
Self-inflammability: Not determined.

Danger of explosion: Product is not explosive.

Critical values for explosion:
- **Lower:** Not determined
- **Upper:** Not determined

Steam pressure: Not applicable.

Density at 20 °C 2.245 g/cm³

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with Water: Decomposes

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
- **Dynamic:** Not applicable
- **Kinematic:** Not applicable

9.2 Other information No further relevant information available.

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**SECTION 10: Stability and reactivity**

10.1 Reactivity No information known.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions Reacts with strong oxidising agents

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials:
- Oxidising agents
- Water/moisture
- Bases
- Heat
- Light

10.6 Hazardous decomposition products:
- Carbon monoxide and carbon dioxide
- Nitrogen oxides (NOx)
- Hydrogen iodide (HI)

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**SECTION 11: Toxicological information**

11.1 Information on toxicological effects

Acute toxicity: Harmful if swallowed. The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: Causes skin 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: 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.

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**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.

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**SECTION 13: Disposal considerations**

13.1 Waste treatment methods 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.

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**SECTION 14: Transport information**

14.2 UN proper shipping name ADR, ADN, IMDG, IATA Not applicable

14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Not applicable

Class Not applicable

Packing group ADR, IMDG, IATA Not applicable

14.5 Environmental hazards: Not applicable.
Trade name: **N-Iodosuccinimide**

### 14.6 Special precautions for user
Not applicable.

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

**UN “Model Regulation”:**

<table>
<thead>
<tr>
<th>SECTION 15: Regulatory information</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</td>
</tr>
<tr>
<td>Standard for the Uniform Scheduling of Medicines and Poisons Substance is not listed.</td>
</tr>
<tr>
<td>National regulations</td>
</tr>
<tr>
<td>Information about limitation of use:</td>
</tr>
<tr>
<td>For use only by technically qualified individuals.</td>
</tr>
<tr>
<td>Employment restrictions concerning young persons must be observed.</td>
</tr>
<tr>
<td>Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.</td>
</tr>
<tr>
<td>Other regulations, limitations and prohibitive regulations</td>
</tr>
<tr>
<td>ELINCS (European List of Notified Chemical Substances) Substance is not listed.</td>
</tr>
<tr>
<td>Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>Substance is not listed.</td>
</tr>
<tr>
<td>Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.</td>
</tr>
<tr>
<td>15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.</td>
</tr>
</tbody>
</table>

### 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:**
RID: Règlement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
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)
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3