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

1.1 Product identifier
Trade name: (3-Glycidoxypropyl)trimethoxysilane

Stock number: A18431
CAS Number: 2530-63-8
EC number: 219-784-2

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
Zeppelinstr. 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:
Carechen 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

GHS07
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

Other hazards that do not result in classification No information known.

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
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 / eye protection / face protection.
P305+P351+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 person to fresh air and keep comfortable for breathing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

3.1 Substances
CAS# Designation:
2530-63-8 (3-Glycidoxypropyl)trimethoxysilane

Concentration: ≤100%

EC number: 219-784-2

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.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.
Causes serious eye 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.

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
Silicon oxide
## SECTION 6: Accidental release measures

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

### 6.2 Environmental precautions:
- Do not allow product to reach sewage system or water bodies.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Ensure adequate ventilation.

### 6.3 Methods and material for containment and clean-up:
- No special measures required.

### 6.4 Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protective 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.
- 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
- Store under dry inert gas.
- This product is moisture sensitive.
- Keep container tightly sealed.
- Store in cool, dry conditions in well sealed containers.

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters
- Components with critical values that require monitoring at the workplace:
  - 2530-83-8 (3-Glycidoxypropyl)trimethoxysilane (100,0%)
    - MAK (Germany) vgl. Abschn. IVE

### 8.2 Exposure controls
- **Personal protective equipment**
  - **General protective and hygienic measures**: The usual precautionary measures should be adhered to in handling the chemicals.
  - **Breathing equipment**: Use breathing protection with high concentrations.
    - **Recommended filter device for short term use**: Use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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 such as NIOSH (USA) or CEN (EU).
  - **Protection of hands**: Check protective gloves prior to each use for their proper condition.
    - **Material of gloves**: Butyl rubber, BR
    - **Penetration time of glove material (in minutes)**: 480
    - **Glove thickness**: 0.3 mm
    - **Eye protection**: Face protection
      - Safety glasses with side shields / NIOSH (US) or EN 166(EU)
  - **Body protection**: Protective work clothing.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties
- **Appearance**: Liquid
- **Odour**: Odourless
- **Odour threshold**: Not determined
- **pH-value**: Not determined
- **Change in condition**
  - **Melting point/freezing point**: < -70 °C
  - **Initial boiling point and boiling range**: 119-121 °C (2mm)
  - **Sublimation temperature / start**: Not determined
  - **Flash point**: 135 °C
  - **Inflammability (solid, gaseous)**: Not determined.
  - **Ignition temperature**: Not determined.
Decomposition temperature: Not determined
Self-inflammability: Not determined.

Explosive properties:
Critical values for explosion:
Lower: 0,43 Vol %
Upper: Not determined.
Steam pressure: Not determined.
Density at 20 °C: 1.072 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.
Solubility in / Miscibility with Water: Decomposes
Partition coefficient: n-octanol/water: Not determined.
Viscosity:
dynamic: Not determined.
kinematic: Not determined.

9.2 Other information
No further relevant information available.

SECTION 10: Stability and reactivity
10.1 Reactivity
No information known.

10.2 Chemical stability
Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

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:
Acids
Bases
Oxidising agents
Water/moisture

10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information
11.1 Information on toxicological effects
Acute toxicity
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD50 values that are relevant for classification:
Oral LD50: 22600 µL/kg (rat)
Dermal LD50: 3970 µL/kg (rabbit)

Skin irritation or corrosion:
Causes skin irritation.

Eye irritation or corrosion:
Causes serious eye irritation.

Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.

Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.

Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure: May cause respiratory irritation.

Specific target organ system toxicity - single exposure: May cause respiratory irritation.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

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 product to reach ground water, water bodies or sewage system.
Water hazard class 2 (Self-assessment): hazardous for water.
Danger to drinking water if even small quantities leak into soil.
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
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.

SECTION 14: Transport information
UN Number
ADR, ADN, IMDG, IATA: Not applicable.

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA: Not applicable.
### 14.3 Transport hazard class(es)

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<th>Class</th>
<th>Not applicable</th>
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<tbody>
<tr>
<td>Packing group</td>
<td>ADR, IMDG, IATA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

### 14.5 Environmental hazards:

Not applicable.

### 14.6 Special precautions for user

Not applicable.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

### 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 listed.

Standard for the Uniform Scheduling of Medicines and Poisons: Substance is not listed.

Directive 2012/18/EU: Named dangerous substances - ANNEX I: Substance is not listed.

REGULATION (EC) No 1907/2006: ANNEX XVII Conditions of restriction: 3

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 2 (Self-assessment): hazardous for water.

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

Substance 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.

National regulations:

Information about limitation of use:

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 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 Harmonised 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
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety and Health Administration (USA)
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- BEI: Biological Exposure Limit
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3