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| Version 1  |
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| 1 Identification   |
| Product identifier<br>Product name: <b>Alprazolam</b>  |
| Stock number: H37921<br>CAS Number:  |
| 28981-97-7<br>EC number:   |
| 249-349-2<br>Relevant identified uses of the substance or mixture and uses advised against.<br>Identified use: SU24 Scientific research and development  |
| Details of the supplier of the safety data sheet<br>Manufacturer/Supplier:   |
| Alfa Aesar<br>Thermo Fisher Scientific Chemicals, Inc.<br>30 Bond Street   |
| Ward Hill, MA 01835-8099<br>Tel: 800-343-0660<br>Fax: 800-322-4757   |
| Email: tech@alfa.com<br>www.alfa.com   |
| Information Department: Health, Safety and Environmental Department<br>Emergency telephone number:<br>During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. |
|  |
| 2 Hazard(s) identification<br>Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)   |
| GHS07  |
| Acute Tox. 4 H302 Harmful if swallowed.<br>Hazards not otherwise classified No information known.  |
| Label elements<br>GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)<br>Hazard pictograms  |
|  |
| GHS07  |
| Signal word Warning<br>Hazard statements<br>H302 Harmful if swallowed.<br>Proceutionary statements   |
| Precautionary statements<br>P264 Wash thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P301+P312 IF_SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  |
| P30 Finse mouth.<br>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.<br>WHMIS classification   |
| D2A - Very toxic material causing other toxic effects  |
| Ð  |
| Classification system<br>HMIS ratings (scale 0-4)<br>(Hazardous Materials Identification System)   |
| HEALTH 1 Health (acute effects) = 1<br>FIRE 1 Flammability = 1   |
| Reactivity ① Physical Hazard = 1 Other hazards   |
| Results of PBT and vPvB assessment<br>PBT: Not applicable.<br>vPvB: Not applicable.  |
| 3 Composition/information on ingredients   |
| Chemical characterization: Substances<br>CAS# Description:<br>28981-97-7 Alprazolam  |
| Concentration: ≤100%<br>Identification number(s):  |
| EC number: 249-349-2   |
| 4 First-aid measures Description of first aid measures   |
| After inhalation<br>Supply fresh air. If required, provide artificial respiration. Keep patient warm.<br>Seek immediate medical advice.  |
| After skin contact<br>Immediately wash with water and soap and rinse thoroughly.   |
| Seek immédiate medical advice.<br>After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.<br>After eye contact medical treatment  |
| After swallowing Seek medical treatment. (Contd. on page 2)  |
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### (Contd. of page 1)

Information for doctor Most important symptoms and effects, both acute and delayed Harmful if swallowed. Indication of any immediate medical attention and special treatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media Extinguisining media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. 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 Nirogen oxides (NOX) Hydrogen oxides (NOX) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow product to reach sewage system or any water course. Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13. Prevention of secondary hazards: No special measures required. 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 disposal information. Protective Action Criteria for Chemicals PAC-1: Substance is not listed. PAC-3: Substance is not listed. 7 Handling and storage Handling Precautions for safe handling Recautions for sale nanoling 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: No information known. Conditions for safe storage, including any incompatibilities 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. Specific end use(s) No further relevant information available. 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. Control parameters Components with limit 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 Exposure controls Personal protective equipment 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. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Recommended filter device for short term use: Use a respirator with type N95 (USA) or P2 (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: Impervisus gloves Protection of nands: Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary 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 with side shields / NIOSH (US) or EN 166(EU) Body protection: Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Solid Not determined Odor: Odor threshold: Not determined (Contd. on page 3) 10

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| oduct name: Alprazolam   |   |                    |
|--|---|--------------------|
|  |   | (Contd. of page 2) |
| pH-value:  | Not applicable.   |                    |
| Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Sublimation temperature / start:  | Not determined<br>Not determined<br>Not determined  |                    |
| Flash point:<br>Flammability (solid, gaseous)<br>Ignition temperature:<br>Decomposition temperature:<br>Auto igniting:   | Not determined<br>Not determined<br>Not determined<br>Not determined<br>Not determined.   |                    |
| Density:<br>Relative density<br>Vapor density<br>Evaporation rate<br>Solubility in / Miscibility with<br>Water:<br>Partition coefficient (n-octanol/water):<br>Viscosity:<br>dvnamic:  | Not determined.<br>Not determined<br>Not applicable.<br>Not determined<br>Not determined.<br>Not applicable.<br>Not applicable.<br>Not determined<br>Not determined.<br>Not determined.<br>Not determined.<br>Not applicable.<br>Not applicable.<br>Not applicable.<br>Not applicable.<br>Not applicable.<br>Not applicable.<br>Not applicable. |                    |
| D Stability and reactivity<br>Reactivity No information known.<br>Chemical stability Stable under recommended storage conditions.<br>Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.<br>Possibility of hazardous reactions Reacts with strong oxidizing agents<br>Conditions to avoid No further relevant information available.<br>Incompatible materials: Oxidizing agents<br>Hazardous decomposition products:<br>Carbon monoxide and carbon dioxide<br>Nitrogen oxides<br>Hydrogen chloride (HCI) |   |                    |
| 1 Toxicological information<br>Information on toxicological effects<br>Acute toxicity:<br>Harmful if swallowed.<br>The Registry of Toxic Effects of Chemica<br>LD/LC50 values that are relevant for cr<br>Oral LD50 1220 mg/kg (rat)<br>Skin irritation or corrosion: May cause<br>Eye irritation or corrosion: May cause<br>Sensitization: No sensitizing effects kno   | pirritation<br>irritation   |                    |

Sensitization: No sensitizing effects 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: The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No effects known.

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.

# 12 Ecological information

Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. Additional ecological information: Additional ecological information: General notes: Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

## 13 Disposal considerations

Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.

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|   | (Contd. of page 3)   |
|---|--|
| 14 Transport information  |  |
| UN-Number<br>DOT, ADN, IMDG, IATA   | Not applicable   |
| UN proper shipping name<br>DOT, ADR, ADN, IMDG, IATA  | Not applicable   |
| Transport hazard class(es)  |  |
| DOT, ADR, ADN, IMDG, IATA   | Not applicable   |
| Class<br>Packing group  | Not applicable   |
| Packing group<br>DOT, ADR, IMDG, IATA   | Not applicable   |
| Environmental hazards:  | Not applicable.  |
| Special precautions for user  | Not applicable.  |
| Transport in bulk according to Annex II of MARPOL73/78 and<br>Transport/Additional information:   | the IBC Code Not applicable.   |
| DOT   |  |
| Marine Pollutant (DOT):   | No   |
| UN "Model Regulation":  | Not applicable   |
| GHS label elements The product is classified and labeled in accordination of the product product of the produc | you feel unwell.<br>al/regional/national/international regulations.<br>tic Substances List (DSL).<br>ency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted<br>or directly under the supervision of a technically qualified individual as defined by TSCA. This<br>ons for commercial purposes. |
| Prop 65 - Chemicals known to cause cancer Substance is not l  | listed.  |
| Prop 65 - Developmental toxicity 28981-97-7 Alprazolam  |  |
| Prop 65 - Developmental toxicity, female Substance is not listed.<br>Prop 65 - Developmental toxicity, male Substance is not listed.<br>Information about limitation of use: For use only by technically  | qualified individuals.<br>ACH Regulations (EC) No. 1907/2006. Substance is not listed.<br>nex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the   |
| 16 Other information<br>Employers should use this information only as a supplement to otl<br>information to ensure proper use and protect the health and safety<br>conformance with this Safety Data Sheet, or in combination with a  | her information gathered by them, and should make independent judgement of suitability of this<br>y of employees. This information is furnished without warranty, and any use of the product not in<br>any other product or process, is the responsibility of the user.  |
| Department issuing SDS: Global Marketing Department<br>Date of preparation/Revision: Print date, revision date and versi<br>Abbreviations and acronyms:<br>ADR: Accord européen sur le transport des marchandises dangereuses par Route (Eur<br>IMDG: International Maritime Code for Dangerous Goods<br>DOT: US Department of Transport Association<br>IATA: International Maritime Code for Dangerous Goods<br>DOT: US Department of Transport Association<br>IATA: International Air Transport Association<br>IATA: International Diventory of Existing Commercial Chemical Substances<br>CAS: Chemical Abstracts Service (division of the American Chemical Society)<br>HMIS: Hazardous Materials Information System (ICAA)<br>UC50: Lethal dose, 50 percent<br>PBT: Persistent, Bioaccumulative and Toxic<br>SVHC: Substances of Very High Concern<br>VPVB: very Persistent and very Bioaccumulative<br>ACGIH: American Conference of Governmental Industrial Hygienists (USA)<br>OSHA: Occupational Safety and Health Administration (USA)<br>NTP: National Toxicology Program (USA)<br>Acute Tox. 4: Acute toxicity – Category 4  | on number are in the header of each page.  |