Safety Data Sheet



Revision date 07/13/2016
1 Identification
Product identifier
Product name: N-AcetyI-D-valine
Stock number: H66103 CAS Number: 17916-88-0 EC, number:
241-860-9 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development
Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660
Fax: 800-322-4757 Email: tech@alfa.com www.alfa.com
Information Department: Health, Safety and Environmental Department Emergency telephone number: 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 Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) GHS07
Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known.
Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms
GHS07
Signal word Warning Hazard statements H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. Precautionary statements P261 Avid breathing dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/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 victim to fresh air and keep at rest in a position comfortable for breathing. P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse. P321 Specific treatment (see on this label). P405 Store locked up
P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects
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Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1 Reactivity 1 Physical Hazard = 1
Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.
3 Composition/information on ingredients
Chemical characterization: Substances CAS# Description: 17916_88-0 N-Acetyl-D-valine
Identification number(s): EC number: 241-860-9
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4 First-aid measures

Description of first aid measures

After inhalation

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

After skin contact 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 a doctor. After swallowing Seek medical treatment. Information for doctor Mact important currentees and offects, both agute and dolayed

Most important symptoms and effects, both acute and delayed Causes skin irritation.

Causes skin inflation. Causes serious eye irritation. May cause respiratory irritation. May cause an allergic skin reaction. **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

Extinguishing 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 Nitrogen 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: Ensure adequate ventilation. 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.

7 Handling and storage

Handling Precautions for safe handling

Keep container tightly sealed. 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: Store in freezer (-20 °C). Information about storage in one common storage facility:

Protect from heat. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. 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

General protective and hygienic measures The usual procertive 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.

Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. 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 PE (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:** Impervious gloves Check protective gloves prior to each use for their proper condition

Impervious gioves 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. **Eye protection:** Safety glasses **Body protection:** Protective work clothing.

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9 Physical and chemical properties	S		
Information on basic physical and ch General Information Appearance:			
Form: Odor:	Crystalline Not determined		
Odor threshold: pH-value:	Not determined. Not applicable.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined Not determined Not determined Not determined. Not determined Not determined Not determined.		
Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density Vapor density Evaporation rate Solubility in / Miscibility with Water:	Not determined. Not determined Not determined Not determined Not determined. Not applicable. Not applicable. Not applicable.		
Partition coefficient (n-octanol/water, Viscosity: dynamic: kinematic:): Not determined. Not applicable. Not applicable.		
Other information	No further relevant information available.		
10 Stability and reactivity Reactivity No information known.			
Chemical stability Stable under recommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Possibility of hazardous reactions Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Heat Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides			
11 Toxicological information 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: May cause an allergic skin reaction. Germ cell mutagenicity: No effects known. Carcinogenicity: 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.			
Carcinogenic categories OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.			
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: 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 Uncleaned packagings: Recommendation: Disposal must be n	or national regulations to ensure proper disposal. nade according to official regulations.	USA	
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14 Transport information			
UN-Number DOT, ADN, IMDG, IATA	Not applicable		
UN proper shipping name DOT, ADN, IMDG, IATA	Not applicable		
Transport hazard class(es)			
DOT, ADR, ADN, IMDG, IATA			
Class	Not applicable		
Packing group DOT, 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 the IBC Code Not applicable.			
Transport/Additional information:			
DOT			
Marine Pollutant (DOT):	No		
UN "Model Regulation":	-		
Safety, health and environmental regulations/legislation specific for the GHS label elements The product is classified and labeled in accordance with Hazard pictograms GHS07	substance or mixture o 29 CFR 1910 (OSHA HCS)		
Signal word Warning Hazard statements H315 Causes skin irritation. H317 May cause espiratory irritation. H317 May cause espiratory irritation. H317 May cause an allergic skin reaction. H318 May cause an allergic skin reaction. H318 May cause espiratory irritation. Procautionary statements H261 Avoid breathing dust/fume/gas/mist/vapours/spray. H280 Wear protective gloves/protective clothing/eye protection/face protection. H305 H325 H318 JF IN EVES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. H305 H2735 H2735 JF IN EVES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. H305 H2745 JF H338 JF IN EVES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. H305 H2745 JF H338 JF IN EVES: Rinse cautiously with water for several minutes. Remove contract lenses, if present and easy to do. Continue rinsing. H306 H2745 JF H338 JF IN EVES: Rinse cautions before reuse. H316 JF H318 JF H418 J			
 16 Other information Employers should use this information only as a supplement to other information formation to ensure proper use and protect the health and safety of employed conformation to ensure proper use and protect the health and safety of employed conformation with this Material Safety Data Sheet, or in combination with any Department issuing SDS: Global Marketing Department Date of preparation / last revision 07/14/2016 / - Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreeme DOT: US Department of Transportation EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LCS0: Lethal concentration, 50 percent LDS0: Lethal code percent DPS0: Lethal code percent DP	ion gathered by them, and should make independent judgement of suitability of this sees. This information is furnished without warranty, and any use of the product not in other product or process, is the responsibility of the user. ant concerning the International Carriage of Dangerous Goods by Road)		

NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA) Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 2: A: Serious eye damage/eye irritation, Hazard Category 2A Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

USA