

Safety Data Sheet per OSHA HazCom 2012

Seek immediate medical advice.

1 Identification Product identifier Product name: 1H-Pyrazole-4-carboxylic acid Stock number: H25783 **CAS Number:** 37718-11-9 EC number: 253-641-5 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: 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: Call Carechem 24 at +44 (0) 1865 407333 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. STOT SE 3 H335 May cause respiratory irritation. 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 H335 May cause respiratory irritation. Precautionary statements

 Precautionary statements

 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 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.

WHMIS classification D2B - Toxic material causing other toxic effects Т Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)
 Health
 1

 IRE
 1

 IRE
 1

 Flammability = 1

 REACTWITY 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: 37718-11-9 1H-Pyrazole-4-carboxylic acid Identification number(s): EC number: 253-641-5 4 First-aid measures Description of first aid measures After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm.

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Product name: 1H-Pyrazole-4-carboxylic acid

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

Most important symptoms and effects, both acute and delayed No further relevant information available. 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 material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Ensure adequate ventilation. **Revention 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. 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: Not required. Additional information: No data

Exposure controls

Exposure controls 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 solied and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avaid context with the owner and difference of the soliton.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands:

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. **Penetration time of glove material (in minutes)** Not determined

Eye protection: Safety glasses Body protection: Protective work clothing

9 Physical and chemical properties

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Information on basic physical and chemical properties General Information Appearance: Form: Solid Odor: Not determined Odor threshold: Not determined.	
pH-value:	Not applicable.
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	281-283 °C (538-541 °F) Not determined Not determined
Flash point:	Not applicable

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Product name: 1H-Pyrazole-4-carbc	Product name: 1H-Pyrazole-4-carboxylic acid		
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Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined. Not determined Not determined Not determined.		
Danger of explosion:	Product does not present an explosion hazard.		
Explosion limits: Lower: Upper: Vapor pressure:	Not determined Not determined Not applicable.		
Density: Relative density	Not determined Not determined		
Vapor density Evaporation rate	Not applicable. Not applicable.		
Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water)	Not determined		
Viscosity: dynamic:	Not applicable.		
kinematic: Other information	Not applicable. Not applicable. 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 No dangerous reactions known Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents 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 skin irritation. Eye irritation or corrosion: Causes serious eye irritation. Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: 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.			
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 material to be released to the environment without proper governmental permits. 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.			
14 Transport information Not a hazardous material for transporta UN-Number	ation.		
DOT, IMDG, IATA	None		
UN proper shipping name DOT, IMDG, IATA	None		
Transport hazard class(es) DOT, ADR, IMDG, IATA Class	None		
Packing group DOT, IMDG, IATA	None		
Environmental hazards:	Note Note Note Note Note Note Note Note		
Special precautions for user	Not applicable.		
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	Reviewed on 06/13/2008
Product name: 1H-Pyrazole-4-carboxylic acid	
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Transport in bulk according to Annex II of MARPOL73/ Transport/Additional information:	//8 and the IBC Code Not applicable. Not dangerous according to the above specifications.
DOT	
Marine Pollutant (DOT):	No
15 Regulatory information	
Safety, health and environmental regulations/legislatic GHS label elements The product is classified and labeled Hazard pictograms	In specific for the substance or mixture I in accordance with 29 CFR 1910 (OSHA HCS)
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/vat P280 Wear protective gloves/protective cloth P305+P351+P338 IF IN EYES: Rinse cautiously with wate	oours/spray. ing/eye protection/face protection. er for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. air and keep comfortable for breathing.
P405 Store locked up.	
National regulations	dance with local/regional/national/international regulations.
This product is not listed in the U.S. Environmental Protect	
Prop 65 - Chemicals known to cause cancer Substance Prop 65 - Developmental toxicity Substance is not listed Prop 65 - Developmental toxicity, female Substance is no Prop 65 - Developmental toxicity, male Substance is no Information about limitation of use: For use only by tecl	l. not listed. hnically gualified individuals.
Other regulations, limitations and prohibitive regulation Substance of Very High Concern (SVHC) according to The conditions of restrictions according to Article 67 a market and use must be observed. Substance is not listed.	ons the REACH Regulations (EC) No. 1907/2006. Substance is not listed. and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on th
Annex XIV of the REACH Regulations (requiring Autho Chemical safety assessment: A Chemical Safety Assess	vrisation for use) Substance is not listed. sment has not been carried out.
information to ensure proper use and protect the health an	ent to other information gathered by them, and should make independent judgement of suitability of this nd safety of employees. This information is furnished without warranty, and any use of the product not in mbination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / -	
Abbreviations and acronyms: RID: Reglement international concernant le transport des marchandises dang IATA-DGR: Dangerous doods: Regulations by the "International Air Transport	pereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) t Association" (IATA)
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization IICAO-TI: Technical Maritime Code for Dangerous Goods DOT: US Department of Transportation	יחר" (ICAO)
RID: Règlement international concernant le transport des marchandises dang IATA-DGR: Dangerous Goods Regulations by the "International Air Transport ICAO: International Civil Aviation Organization ICAO: The Technical Instructions by the "International Civil Aviation Organizatio IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association 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) LC50: Lethal concentration, 50 percent LD50: Lethal conternation, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference 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))
LDou: 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)	
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	USA