

Safety Data Sheet per OSHA HazCom 2012

Reviewed of	1 10/03/2014
1 Identification	
Product identifier	
Product name: <u>3-Cyano-2-pyridone</u>	
Stock number: H64254 CAS Number: 20577-27-9	
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	
Environmeton Department, realin, salety 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	
Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin.	
Acute Tox. 4 H332 Harmful if inhaled. 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 H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. 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. 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 D1B - Toxic material causing immediate and serious toxic effects D2B - Toxic material causing other toxic effects	
Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)	
HEALTH I FIRE I FRE I REACTIVITY II 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: 20577-27-9 3-Cyano-2-pyridone	
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.	
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(Contd. on page 3) USA

Product name: 3-Cyano-2-pyridone	
After skin contact	(Contd. of page
Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.	
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 Hydrogen cyanide (HCN)	
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:	
Dispose of contaminated material as waste according to section 13. 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.	
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	
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. 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:	
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 deter purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.	rmine if air-
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	
Eve protection: Safety glasses Body protection: Protective work clothing.	
9 Physical and chemical properties	
Information on basic physical and chemical properties General Information	
Appearance: Form: Solid	
Color: Yellow Odor: Not determined	
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		(Contd. of page 2)	
Odor threshold:	Not determined.		
pH-value:	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:	224-226 °C (435-439 °F) Not determined Not determined Not determined Not determined Not determined Not determined.		
Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density: Relative density	Not determined Not determined Not determined Not determined Not determined Not determined		
Vapor density Evaporation rate Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water) Viscosity: dynamic: kinematic: Other information	Not applicable. Not applicable. Not determined Not applicable. 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 Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Hydrogen cyanide Nitrogen oxides			
11 Toxicological information Information on toxicological effects Acute toxicity: Harmful if inhaled. Harmful if inhaled. Harmful if swallowed. Danger through skin absorption. 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. Gerger dell mutagenicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. 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 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			
UN-Number DOT, IMDG, IATA	UN3439		
UN proper shipping name			
DOT	Nitriles, solid, toxic, n.o.s. (3-Cyano-2-pyridone)		

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Product name: 3-Cyano-2-pvridone

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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 t 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 n 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 Date of preparation / last revision 11/24/2015 / -	Hazard pictograms GHS07 Signal word Warning Hazard statements H302+H312+H332 Harmful if swallowed, in contact with ski H315 Causes skin irritation. H319 Causes serious eye irritation. H325 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapor P280 Wear protective gloves/protective clothin P305+P351+P338 IF IN EYES: Rinse cautiously with water P304+P340 IF INHALED: Remove person to fresh ai P405 Store locked up. P501 Dispose of contents/container in accorde National regulations This product is not listed in the U.S. Environmental Protective to research and development only. This product must be used for on This product is not listed on the Canadian Domestic Substa SARA Section 313 (specific toxic chemical listings) Sub California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not Information about limitation of use: For use only by techn Other regulations, limitations and prohibitive regulation Substance of Very High Concern (SVHC) according to t The conditions of restrictions according to Article 67 an market and use must be observed. Substance is not listed.	in or if inhaled. ours/spray. ng/eye protection/face protection. r/or several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. ir and keep comfortable for breathing. ance with local/regional/national/international regulations. ion Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted sed by or directly under the supervision of a technically qualified individual as defined by TSCA. This mulations for commercial purposes. ances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). stance is not listed. is not listed. is not listed. is tot listed. is tot listed. is really qualified individuals. 15 the REACH Regulations (EC) No. 1907/2006. Substance is not listed. nd Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of t 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 n 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 Date of preparation / last revision 11/24/2015 / -	16 Other information	
LD50: Lethal dose, 50 percent vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) (Control on	Employers should use this information only as a supplemen information to ensure proper use and protect the health and conformance with this Material Safety Data Sheet, or in con Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / -	

Product name: 3-Cyano-2-pyridone

OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) JRRC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA) Page 5/5 Printing date 11/24/2015 Reviewed on 10/03/2014

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USA -