Reviewed on 06/16/2009

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 06/16/2009

1 Identification of substance:

Product details:

Product name: <u>1,2-Cyclohexanediol</u>

Stock number: A18572

Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company Johnson Matthey Catalog Company, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Emergency Phone: (978) 521-6300 CHEMTREC: (800) 424-9300 Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department

Emergency information: During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:

Chemical characterization: Description: (CAS#) 1,2-Cyclohexanediol (CAS# 931-17-9): 100% Identification number(s): EINECS Number: 213-229-8

3 Hazards identification

Hazard description: Not applicable Information pertaining to particular dangers for man and environment Not applicable Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)



Health (acute effects) = 1 Flammability = 1 Reactivity = 1

GHS label elements Void

4 First aid measures

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

5 Fire fighting measures

Suitable extinguishing agents

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards caused by the material, its products of combustion or resulting gases: In case of fire, the following can be released: Carbon monoxide and carbon dioxide Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits. Measures for cleaning/collecting: Pick up mechanically.

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USA

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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 Information for safe handling: Keep container tightly sealed. Store in cool, dry place in tightly closed containers. No special precautions are necessary if used correctly. Information about protection against explosions and fires: Keep ignition sources away.
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.
8 Exposure controls and 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.
Components with limit values that require monitoring at the workplace: Not required. Additional information: No data
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.
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.
Material of gloves The selection of suitable gloves not only depends on the material, but also on quality.
<i>Quality will vary from manufacturer to manufacturer.</i> Eye protection: Safety glasses
Body protection: Protective work clothing.
9 Physical and chemical properties:
General Information
Form: Crystalline

Form:	Crystalline Chunks
Color:	Light yellow
Odor:	Not determined
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
	(Contd. on page

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Density:

Not determined

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Materials to be avoided: Oxidizing agents Dangerous reactions No dangerous reactions known Dangerous products of decomposition: Carbon monoxide and carbon dioxide

11 Toxicological information

Acute toxicity: Primary irritant effect: on the skin: May cause irritation on the eye: May cause irritation Sensitization: No sensitizing effects known. Subacute to chronic toxicity: Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

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 transportation.

DOT regulations Hazard class:	None
Land transport	ADR/RID (cross-border)
ADR/RID class:	None
Maritime transp IMDG Class:	None
Air transport I	CAO-TI and IATA-DGR:
ICAO/IATA Class	: None

Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations

Product related hazard informations: Observe the general safety regulations when handling chemicals

National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

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Information about limitation of use: For use only by technically qualified individuals.

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 Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department. Contact: Zachariah Holt 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) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association IATA: International Civil Aviation Organization ICAO-ITI: Technical Instructions by the "International Air Transport Association" (IATA) ICAO-ITI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Society) HMIS: Hazardous Materials Identification System (USA)