Printing date 01/11/2010

Reviewed on 01/08/2010

#### 1 Identification of substance:

Product details:

Product name: Diethylene glycol diacrylate

Stock number: L10682 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

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#)

Diethylene glycol diacrylate (CAS# 4074-88-8)

Identification number(s):
EINECS Number: 223-791-6
Index number: 607-120-00-8

#### 3 Hazards identification

#### Hazard description:



T Toxic

#### Information pertaining to particular dangers for man and environment

R 24 Toxic in contact with skin.

R 36/38 Irritating to eyes and skin.

R 43 May cause sensitization by skin contact.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)



Health (acute effects) = 2
Flammability = 1
Reactivity = 1

#### GHS label elements



#### Danger

3.1/3 - Toxic in contact with skin.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.

#### Prevention:

Wear eye/face protection.

#### Response:

IF ON SKIN: Wash with plenty of soap and water.

IF exposed or if you feel unwell:

Immediately call a POISON CENTER or doctor/physician.

#### 4 First aid measures

#### General information

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

#### After inhalation

Supply fresh air and to be sure call for a doctor.

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

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#### 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 immediate medical advice.

#### 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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

#### Additional information:

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.

Ensure good ventilation at the workplace.

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.

Store in the dark.

Protect from heat.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from exposure to light.

#### 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.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

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#### 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.

Quality will vary from manufacturer to manufacturer.

Eye protection: Safety glasses

Body protection: Protective work clothing.

#### 9 Physical and chemical properties:

General Information	
Form: Color: Odor:	Liquid Colorless Not determined
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	94°C (201°F) (0.2 mmHg)
Flash point:	> 110°C (> 230°F)
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits: Lower: Upper:	Not determined Not determined
Vapor pressure:	Not determined
Density at 20°C (68°F):	1.118 g/cm³
Solubility in / Miscibility with Water:	Not miscible or difficult to mix

#### 10 Stability and reactivity

#### Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Danger of containers bursting upon heating.

Stable until: Depletion of inhibitor.

#### Materials to be avoided:

Oxidizing agents Ultraviolet radiation Free radical initiators

#### Dangerous reactions

Danger of polymerization

Spontaneous polymerization can be caused in unstabilized product e.g. by ambient heat

 $\textbf{\textit{Dangerous products of decomposition:}} \ \textit{Carbon monoxide and carbon dioxide}$ 

#### Additional information:

Unless inhibited, the product can polymerize resulting in a temperature and pressure increase that may rupture the container.

#### 11 Toxicological information

#### Acute toxicity:

LD/LC50 values that are relevant for classification:		
Oral	LD50	550 mg/kg (mouse)
		250 mg/kg (rat)
Dermal	LD50	180 $\mu$ L/kg (rabbit)
Irritation of skin	severe	500 mg (rabbit)
Irritation of eyes	severe	100 mg (rabbit)

#### Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Strong irritant with the danger of severe eye injury.

Sensitization: Sensitization possible through skin contact.

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#### 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.

Danger through skin absorption.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

#### 12 Ecological information:

#### Ceneral 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

#### DOT regulations:



Hazard class: 6.1
Identification number: UN2810
Packing group: III

Proper shipping name (technical name): TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene glycol

diacrylate) 6.1

Land transport ADR/RID (cross-border)



ADR/RID class: 6.1 (T1) Toxic substances

Danger code (Kemler): 60
UN-Number: 2810
Packaging group: III

Description of goods: 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene glycol

diacrylate)

### Maritime transport IMDG:



IMDG Class:6.1UN Number:2810Label6.1Packaging group:IIIEMS Number:F-A,S-AMarine pollutant:No

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### Material Safety Data Sheet

acc. to OSHA and ANSI

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Product name: Diethylene glycol diacrylate

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Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene glycol

diacrvlate)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 6.1 UN/ID Number: 2810 Label 6.1 Packaging group: III

Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Diethylene glycol

diacrylate)

UN "Model Regulation": UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III

#### 15 Regulations

Product related hazard informations:

#### Hazard symbols:

T Toxic

#### Risk phrases:

24 Toxic in contact with skin.

36/38 Irritating to eyes and skin.

May cause sensitization by skin contact.

#### Safety phrases:

28 After contact with skin, wash immediately with plenty of soap and water

39 Wear eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately.

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

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

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

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: 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 Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIC: Hazardous Materials Identification System (USA)

HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent