

Material Safety Data Sheet

Date Created: 03/07/2009

Date Updated: 02/06/2010

Version: 1.0

Section 1 - Product And Company Information

Product m-Xylylenediamine
Product No D032
Company Dynamic N.A. Inc
Address 23 Captains Walk, Milford, CT 06460, U.S.A.
Phone 1 914 965 2077
Fax 1 914 375 2093

Section 2 - Composition/Information On Ingredients

Synonyms MXDA
CAS # 1477-55-0
Formula C₈H₁₂N₂

Section 3 - Hazards Identification

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Dermal (Category 4)

Skin corrosion (Category 1B)

Skin sensitization (Category 1)

Chronic aquatic toxicity (Category 3)

CLASSIFICATION ACCORDING TO EU DIRECTIVES 67/548/EEC OR 1999/45/EC

Harmful in contact with skin and if swallowed. Toxic by inhalation. Causes burns. May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HAZARD STATEMENT(S)

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENT(S)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory 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.
P310 Immediately call a POISON CENTER or doctor/ physician.

ACCORDING TO EUROPEAN DIRECTIVE 67/548/EEC AS AMENDED

R-phrase(s)

R21/22 Harmful in contact with skin and if swallowed.
R23 Toxic by inhalation.
R34 Causes burns.
R43 May cause sensitization by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

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Section 4 - First Aid Measures

GENERAL ADVICE

Consult a physician. Show this safety data sheet to the doctor in attendance.

IF INHALED

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

IN CASE OF SKIN CONTACT

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

IN CASE OF EYE CONTACT

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

IF SWALLOWED

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No data available

Section 5 - Fire Fighting Measures

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Carbon oxides, nitrogen oxides (NOx)

PRECAUTIONS FOR FIRE-FIGHTERS

Wear self contained breathing apparatus for fire fighting if necessary.

FURTHER INFORMATION

No data available

Section 6 - Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

REFERENCE TO OTHER SECTIONS

For disposal see section 13.

Section 7 - Handling and Storage

PRECAUTIONS FOR SAFE HANDLING

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

CONDITIONS FOR SAFE STORAGE

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Air sensitive. Sensitive to carbon dioxide Store under inert gas.

Section 8 - Exposure Controls / Personal Protection

EXPOSURE CONTROLS

Appropriate engineering controls

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Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

PERSONAL PROTECTIVE EQUIPMENT**EYE/FACE PROTECTION**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN PROTECTION

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

BODY PROTECTION

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

RESPIRATORY PROTECTION

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 - Physical And Chemical Properties

Appearance	Colorless clear liquid
Molecular Weight :	136,2 g/mol
pH	12 at 1 g/l at 20 °C
Melting point/range:	14,1 °C
Boiling range	265 °C at 993 hPa
Flash point	113 °C - closed cup
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Vapour pressure	0,04 hPa at 25 °C, 40 hPa at 121 °C
Vapour density	no data available
Relative density	1,051 g/cm ³ at 20 °C
Water solubility	soluble

Section 10 - Stability and Reactivity

INCOMPATIBLE MATERIALS

Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates

Section 11 - Toxicological Information

ACUTE TOXICITY

LD50 Oral - rat - 930 mg/kg

LC50 Inhalation - rat - 1 h - 700 ppm

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Respiratory disorder

LD50 Dermal - rabbit - 2.000 mg/kg

SKIN CORROSION/IRRITATION

Skin - rabbit - Severe skin irritation - 24 h

SERIOUS EYE DAMAGE/EYE IRRITATION

Eyes - rabbit - Severe eye irritation - 24 h

RESPIRATORY OR SKIN SENSITIZATION

May cause allergic skin reaction.

CARCINOGENICITY

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

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probable, possible or confirmed human carcinogen by IARC.

POTENTIAL HEALTH EFFECTS

Inhalation May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion Harmful if swallowed. Causes burns.

Skin Harmful if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

SIGNS AND SYMPTOMS OF EXPOSURE

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, Cough, Shortness of breath, Headache, Nausea

ADDITIONAL INFORMATION

RTECS: PF8970000

Section 12 - Ecological Information

TOXICITY

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96,0 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - Daphnia magna (Water flea) - 16 mg/l - 48 h

PERSISTENCE AND DEGRADABILITY

Biodegradability

Biotic/Aerobic

Result: 0,40 % - Not readily biodegradable.

OTHER ADVERSE EFFECTS

Harmful to aquatic life with long lasting effects.

Section 13 - Disposal Considerations

WASTE TREATMENT METHODS

PRODUCT

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

CONTAMINATED PACKAGING

Dispose of as unused product.

Section 14 - Transport Information

UN-Number

ADR/RID: 2735

IMDG: 2735

IATA: 2735

UN proper shipping name

ADR/RID: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Bis(aminomethyl)benzene)

IMDG: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Bis(aminomethyl)benzene)

IATA: Polyamines, liquid, corrosive, n.o.s. (1,3-Bis(aminomethyl)benzene)

TRANSPORT HAZARD CLASS(ES)

ADR/RID: 8

IMDG: 8

IATA: 8

PACKAGING GROUP

ADR/RID: II

IMDG: II

IATA: II

ENVIRONMENTAL HAZARDS

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

Section 15 - Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16 - Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.