



SAFETY DATA SHEET

Preparation Date 21-Dec-2006

Revision Date 14-Oct-2013

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name **META XYLYLENE DIAMINE**

Other means of identification

Product Code 3608200
CAS Number 1477-55-0
Formula C₈H₁₂N₂
Synonyms 1,3-Benzenedimethanamine-; 1,3-Bis-(Aminomethyl) Benzene; MXDA
UN-No UN2735

Recommended use of the chemical and restrictions on use

Recommended Use Coatings
Uses advised against Repeated contact with food. Avoid prolonged contact with eyes, skin, and clothing.

Details of the supplier of the safety data sheet

Supplier Address ACETO CORPORATION
4 Tri Harbor Court
Port Washington, NY 11050-4661
Phone: (516) 627-6000
Fax: (516) 627-6093
Email: aceto@aceto.com

Emergency Telephone Number(s)

ChemTrec: 1-800-424-9300 Outside of the United States: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Vapors)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin Corrosion/Irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin Sensitization	Category 1A

Label elements**Emergency Overview****Signal Word****DANGER****Hazard statements**

Harmful if swallowed

Harmful in contact with skin

Toxic if inhaled

Causes severe skin burns and eye damage

May cause an allergic skin reaction

**Appearance**

Colorless to Transparent

Physical State

Liquid

Odor

Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

Call a POISON CENTER or doctor/physician if you feel unwell

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do not induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None known

Other Information

- Harmful to aquatic life with long lasting effects

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms 1,3-Benzenedimethanamine-; 1,3-Bis-(Aminomethyl) Benzene; MXDA

Formula C8H12N2

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Meta Xylylene Diamine	1477-55-0	100	0.1 mg/m ³ Ceiling

4. FIRST AID MEASURES**First Aid Measures**

General Advice Show this safety data sheet to the doctor in attendance. Take off contaminated clothing and shoes immediately.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or Poison Control Centre immediately.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Discard contaminated shoes. Call a physician or Poison Control Centre immediately.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or Poison Control Centre immediately.

Ingestion Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Most important symptoms and effects, both acute and delayed

Main Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Water spray. Carbon dioxide (CO₂). Dry powder. Foam.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products Thermal decomposition or combustion may produce hazardous gases and/or materials.

Explosion Data

Sensitivity to mechanical impact Not available.

Sensitivity to static discharge Not available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental Precautions

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Methods and material for containment and cleaning up

Methods for Cleaning up

Evacuate personnel to safe areas. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling

Use only in an area equipped with a safety shower. Ensure adequate ventilation. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Discard contaminated shoes. Avoid repeated exposure. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers.

Incompatible Materials

Acids. Acid chlorides. Acid anhydrides. Oxidizing agents. Chloroformates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Meta Xylylene Diamine 1477-55-0	0.1 mg/m ³ Ceiling Skin - potential significant contribution to overall exposure by the cutaneous route	-	-

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face Protection Tightly fitting safety goggles. Face-shield.

Skin and body protection Wear protective gloves and protective clothing.

Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations Keep away from food, drink and animal feeding stuffs. When using, do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance Colorless to Transparent
Physical State Liquid
Odor Odorless
Odor Threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	12	
Melting/freezing point	14.1 °C	Literary Reference
Boiling Point/Range	268 - 274 °C	
Flash Point	113 °C / 235 °F	Closed cup
Evaporation Rate		
Flammability (solid, gas)		Flammability Limits in Air
		upper flammability limit No information available
		lower flammability limit Not available
		Vapor Pressure 0.03 mmHg @ 25°C
		Vapor Density 4.7
		Specific Gravity 1.052 g/cm ³ @ 20°C
		Water Solubility Soluble
		Solubility in other solvents No information available
		Partition coefficient: n-octanol/water Not available
		Autoignition temp (°C) No data available
		Decomposition temperature No data available
		Viscosity, kinematic No information available
		Viscosity, dynamic Not available
Estimated		
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Other Information		
Softening Point	No information available	
Molecular Weight	136.19	

VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable.
Chemical Stability	Stable under normal conditions
Hazardous Polymerization	None under normal processing Hazardous polymerisation does not occur
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	Acids. Acid chlorides. Acid anhydrides. Oxidizing agents. Chloroformates.
Hazardous Decomposition Products	Carbon monoxide Carbon dioxide (CO ₂) Nitrogen oxides (NO _x)
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Meta Xylylene Diamine 1477-55-0	= 930 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	= 700 ppm (Rat) 1 h

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	930 mg/kg
ATEmix (dermal)	2000 mg/kg

Information on likely routes of exposure

Eyes	Corrosive. Causes burns. Avoid contact with eyes.
Skin	Harmful in contact with skin. Corrosive. Causes burns. Avoid contact with skin.
Inhalation	Toxic by inhalation. Corrosive. Causes burns. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Avoid breathing vapors or mists.
Ingestion	Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Do not ingest.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Skin,rabbit: 0.75 mg/24H SEV ; Eye,rabbit: 0.05 mg/24H SEV
Eye damage/irritation	No information available.

Skin Corrosion/Irritation	No information available.
Sensitization	May cause sensitization of susceptible persons.
Reproductive Effects	No information available.
Mutagenic Effects	No information available.
Developmental Effects	No information available.
STOT - single exposure	No information available.
STOT - Repeated Exposure	No information available.
Chronic Toxicity	Avoid repeated exposure.
Target Organ Effects	Eyes, Skin, Respiratory system, Liver, Kidney, Lungs.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product Information

ATEmix (inhalation-gas)	700 mg/L
ATEmix (inhalation-dust/mist)	0.5 mg/L
ATEmix (inhalation-vapor)	3 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects. Avoid release to the environment.

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence / Degradability	No information available.
Bioaccumulation / Accumulation	No information available.
Mobility in Soil	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method	Contact waste disposal services. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

UN-No	UN2735
Proper Shipping Name	Amines, liquid, corrosive, n.o.s.
Hazard Class	8
Packing Group	II
Description	Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,UN2735,PG II
Emergency Response Guide Number	153

TDG

UN-No	UN2735
Proper Shipping Name	Amines, liquid, corrosive, n.o.s
Hazard Class	8
Packing Group	II
Description	Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,UN2735,PG II

MEX

UN-No	UN2735
Hazard Class	8
Packing Group	II
Description	UN2735 Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,II

ICAO

UN-No	UN2735
Proper Shipping Name	Amines, liquid, corrosive, n.o.s
Hazard Class	8
Packing Group	II
Description	Amines, liquid, corrosive, n.o.s.*(Meta Xylylene Diamine),8,UN2735,PG II

IATA

UN-No	UN2735
Proper Shipping Name	Amines, liquid, corrosive, n.o.s.
Hazard Class	8
Packing Group	II
Description	UN2735,Amines, liquid, corrosive, n.o.s.*(Meta Xylylene Diamine),8,PG II

IMDG/IMO

UN-No	UN2735
Proper Shipping Name	Amines, liquid, corrosive, n.o.s
Hazard Class	8
Packing Group	II
EmS No.	F-A, S-B
Description	UN2735, Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,PG II

RID

UN-No	UN2735
Hazard Class	8
Packing Group	II
Classification Code	C7
Description	UN2735 Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,II,RID
ADR/RID-Labels	8

ADR

UN-No	UN2735
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Proper Shipping Name	Amines, liquid, corrosive, n.o.s
Hazard Class	8
Packing Group	II
Classification Code	C7
Description	UN2735 Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,II,ADR
ADR/RID-Labels	8

ADN

Proper Shipping Name	Amines, liquid, corrosive, n.o.s
Hazard Class	8
Packing Group	II
Classification Code	C7
Special Provisions	274
Description	UN2735 Amines, liquid, corrosive, n.o.s.(Meta Xylylene Diamine),8,II
Hazard Labels	8
Limited Quantity	500 mL

15. REGULATORY INFORMATION

International Inventories

U.S.A. (TSCA)	Complies
Canada (DSL)	Complies
EU (EINECS)	Complies
EU (ELINCS)	Does not Comply
Japan (ENCS)	Complies
China	Complies
Korea (KECL)	Complies
Philippines (PICCS)	Complies
Australia (AICS)	Complies

Chemical Name	U.S.A. (TSCA)	Canada (DSL)	EU (EINECS)	EU (ELINCS)	
Meta Xylylene Diamine	Present	Present	Present	-	
Chemical Name	Japan (ENCS)	China	Korea (KECL)	Philippines (PICCS)	Australia (AICS)
Meta Xylylene Diamine	Present (3)-308;(3)-2888	Present	Present	Present	Present

*Federal Regulations***SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

*State Regulations***California Proposition 65**

This product does not contain any Proposition 65 chemicals.

State Right-to-Know

This product contains the following State Right-to-Know chemicals:

Chemical Name	New Jersey	Massachusetts	Illinois	Rhode Island	Pennsylvania
Meta Xylylene Diamine 1477-55-0	sn 1320	Present		Toxic	Present

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

*Canada***WHMIS Statement**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION**NFPA**

Health 3

Flammability 1

Instability 0

Physical Hazard 0



Preparation Date 21-Dec-2006

Revision Date 14-Oct-2013

Revision Summary

Not available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS