

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

Product identifier

Product Name AM-1506XL

Other means of identification

Product Code 3.1.010

Synonyms Crosslinker

Recommended use of the chemical and restrictions on use

Recommended Use: Water-borne coatings. Cross-linking agent.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Quaker Color Division of McAdoo & Allen,
 Inc
 201 S. Hellertown Avenue
 Quakertown, PA 18951 USA

Emergency telephone number

Company Phone Number +1-215-536-3520 (Eastern)

Emergency Telephone PERS Emergency Response Information: Domestic Shipments and to Canada:
 1-800-633-8253 • International Shipments: 1-801-629-0667

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Flammable liquids	Category 4

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if inhaled
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause an allergic skin reaction
 Combustible liquid



Appearance clear

Physical state Liquid

Odor Slight

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Keep away from flames and hot surfaces. - No smoking
Wear protective gloves/eye protection/face protection

IF ON SKIN: Wash with plenty of water and soap
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor
In case of fire: Use CO₂, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Will bond to skin.

Other information

- Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Crosslinker.
Chemical characterization Mixture.

Chemical name	CAS No.	Weight-%	Trade secret
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	0.1 - 1.0	*
Hexamethylene diisocyanate	822-06-0	<0.25	*
1,2-Propanediol, diacetate	623-84-7	15 - 40	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of first aid measures**

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If symptoms arise, call a physician.

Ingestion Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO₂). Use:.

Unsuitable Extinguishing Media Water. Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Combustible material. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂).

Explosion data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge Yes.

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 Use personal protective equipment. Avoid contact with the skin and the eyes. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Other information DO NOT GET WATER on spilled substance or inside containers.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Contain spill with inert material (e.g. sand, silica gel, binder).

Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Prevent product from entering drains.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Do not breathe vapours or spray mist. Keep away from heat, sparks and open flame. - No smoking.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed. Keep away from heat and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place. Store in original container.

Incompatible Products Strong oxidizing agents. Strong acids. Strong bases. Alcohols. Amines. Water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm	-	-

Legend

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value.

Other Exposure Guidelines As a rule, at least 10 air changes per hour are recommended at the workplace.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems. Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Tightly fitting safety goggles.

Skin and body protection Wear protective nitrile rubber gloves. Suitable protective clothing. Long sleeved clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Slight
Appearance	clear	Odor threshold	No information available
Color	colorless		
Property	Values	Remarks/ • Method	
pH	No information available		No information available
Melting point / freezing point	No information available		
Boiling point / boiling range	140 °C / 284 °F		Literary reference
Flash point	86 °C / 187 °F		(based on components)
Specific gravity	1.14		Calculated
Water solubility	dispersible		
Kinematic viscosity	No information available		
Dynamic viscosity	300 cPs		Determined
Explosive properties	Not explosive.		
Oxidizing properties	Not an oxidizer		

Other information

Molecular weight No information available

VOC Content (%) <21%
Density 1.14 g/cm³

10. STABILITY AND REACTIVITY

Reactivity

No known effects under normal use conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing. Alcohols; Amines; Strong oxidizing agents.

Conditions to Avoid

Temperatures above 40°C. Heat, flames and sparks. Protect from water. Heating in air. Protect from moisture.

Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases. Alcohols. Amines. Water.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

No toxicology data are available on this product. The health hazard assessment is based on properties of the components.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Benzenesulfonyl isocyanate, 4-methyl- 4083-64-1	= 2234 mg/kg (Rat)	-	> 640 ppm (Rat) 1 h
Hexamethylene diisocyanate 822-06-0	710 mg/kg (rat)	= 593 mg/kg (Rabbit)	= 0.06 mg/L (Rat) 4 h
1,2-Propanediol, diacetate 623-84-7	= 13530 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

No information available.

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

Sensitization

May cause sensitization of susceptible persons. May cause sensitization by inhalation and skin contact.

Germ cell mutagenicity

None known.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.

Reproductive Effects

None known.

Developmental Toxicity

None known.

Teratogenicity

None known.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Chronic toxicity

Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

Aspiration Hazard

No information available.

Numerical measures of toxicity - Product Information

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

ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	>2000 mg/kg
ATEmix (inhalation-dust/mist)	42 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Crustacea
Hexamethylene diisocyanate 822-06-0	Not applicable	LC50: =26.1mg/L (96h, Brachydanio rerio)	Not applicable
1,2-Propanediol, diacetate 623-84-7	Not applicable	LC50: =82mg/L (96h, Poecilia reticulata)	Not applicable

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste Disposal Methods**

It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Should not be released into the environment.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. The hazard and precautionary statements displayed on the label also apply to any residues left in the container. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION**International Inventories**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	Complies
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List	Complies
ENCS - Japan Existing and New Chemical Substances	Complies
IECSC - China Inventory of Existing Chemical Substances	Complies
KECL - Korean Existing and Evaluated Chemical Substances	Complies
PICCS - Philippines Inventory of Chemicals and Chemical Substances	Complies
AICS - Australian Inventory of Chemical Substances	Complies

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values
Hexamethylene diisocyanate - 822-06-0	1.0

SARA 311/312 Hazardous**Categorization**

Refer to Section 2 of SDS for applicable GHS hazard categories for SARA reporting purposes.

Reactive Hazard

Yes

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

Reportable Quantity (RQ):

Chemical name	Hazardous Substances RQs	CERCLA EHS RQs	RQ
Hexamethylene diisocyanate 822-06-0	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm.

State Right-to-Know

Chemical name	New Jersey	Massachusetts	Pennsylvania
Hexamethylene diisocyanate 822-06-0	X	X	-

16. OTHER INFORMATION**NFPA**

Health hazards 3

Flammability 2

Instability 1

HMIS

Health hazards 3*

Flammability 2

Physical hazards 1

Prepared By

Regulations Manager

Issue Date

22-Jul-2016

Revision Date

10-Dec-2019

Revision Note

Update to Format

Disclaimer

The information provided on this SDS 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 Safety Data Sheet