national diagnostics

Revision Date: 03/27/2001

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Methylene Bis-Acrylamide** PRODUCT NUMBER: EC-301

CHEMICAL NAMES/ DESCRIPTION: N, N'-Methylenebisacrylamide, N,N'-methylenebis-2-propenamide

MANUFACTURER: National Diagnostics (U.K.)
Unit 4 Fleet BS PK
Itlings Lane
Hessle, East Yorkshire
HU13 9LX

TELEPHONE NUMBER:
(44) 01482 646022
(44) 01482 646020

EMERGENCY NUMBER:
(44) 01482 646020 (01482 866600 after hours)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	% Comp	CAS #	EINECS #	TLV (units)
BIS-ACRYLAMIDE	100	110-26-9	203-750-9	5 mg/m3 (TWA) (skin) for solid

EEC LABEL SYMBOL AND CLASSIFICATION

TOXIC

R: 45-46-24/25-48/23/24/25

May cause cancer. May cause heritable genetic damage. Also toxic in contact with skin and if swallowed. Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin or if swallowed.

S: 53-45

Avoid exposure, obtain special instructions before use. In case of accident or if you feel ill, seek medical advice immediately (show the label where possible).

3. HAZARDS IDENTIFICATION

APPEARANCE AND ODOR: Fine white crystals.

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

WARNING! HARMFUL IF SWALLOWED. MAY BE HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY AFFECT CENTRAL NERVOUS SYSTEM.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING

PROLONGED OR REPEATED EXPOSURE TO UNSATURATED AMIDES THROUGH ANY ROUTE MAY CAUSE MUSCULAR WEAKNESS, INCOORDINATION, SKIN RASHES, EXCESSIVE SWEATING OF HANDS AND FEET, COLD HANDS, AND PEELING OF THE SKIN.

POTENTIAL HEALTH EFFECTS

INHALATION

Inhalation of mist may cause drowsiness, tingling sensations, fatigue, weakness, stumbling, slurred speech, and shaking. Inhalation studies with this compound have produced acute pulmonary edema in animals. Effects in humans not known.

INGESTION

Toxic! Unsaturated amides cause systemic poisoning.

SKIN

Unsaturated amides cause irritation and redness. Solutions may be absorbed through the skin causing systemic poisoning.

EYES

Contact with the eyes causes irritation.

SIGNS AND SYMPTOMS 0F OVEREXPOSURE

INHALATION

Drowsiness, tingling sensations, fatigue, weakness, stumbling, slurred speech, and shaking.

INGESTION

Drowsiness, tingling sensations, fatigue, weakness, stumbling, slurred speech, and shaking.

SKIN

Pain and redness. Symptoms of absorption of solutions through the skin may parallel ingestion.

EYES

Pain and redness.

CARCINOGENICITY

Not listed as a known or anticipated carcinogen by NTP or IARC.

MUTAGENICITY

No information available.

REPRODUCTIVE TOXICITY

No information available.

TERATOGENIC EFFECTS

No information available.

ROUTES OF ENTRY

Ingestion, inhalation, skin contact.

TARGET ORGAN STATEMENT

Persons with pre-existing skin disorders, eye problems, or central or peripheral nervous system conditions may be more susceptible to the effects of this substance.

4. FIRST AID MEASURES

INHALATION:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

INGESTION:
Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

SKIN:
Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

EYES:
Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

FLASH POINT:	N.A.	FLAMMABLE LIMITS:	N.A.
FLASH POINT METHOD:	N.A.	AUTOIGNITION TEMPERATURE:	N.A.

EXTINGHISHING MEDIA
Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide. Do not use high pressure water stream

PROTECTIVE EQUIPMENT
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

HAZARDOUS COMBUSTION PRODUCTS:
Carbon monoxide, carbon dioxide, nitrogen oxides.

UNUSUAL FIRE AND EXPLOSION HAZARDS
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

NFPA CODES: Health: 2 Flammability: 1 Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Ventilate area. Pick up and place in a suitable container for relamation or disposal, using a method that does not generate dust.

WASTE DISPOSAL METHOD
Disposal must be made in accordance with applicable federal, state, and local regulations.

PERSONAL PRECAUTIONS
Wear appropriate protective equipment as specified in section 8.

7. HANDLING AND STORAGE

HANDLING
Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

STORAGE
Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage. Isolate from incompatible materials (section 10).

STORAGE TEMPERATURE: Room Temperature

DISPOSAL
Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (dust, solids).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:
Component: BIS-ACRYLAMIDE

ACGIH Threshold Limit Value (TLV): 5 mg/m3 (TWA) (skin) for solid

OSHA Permissible Exposure Limit (PEL):

ENGINEERING CONTROLS
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborn Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

RESPIRATORY PROTECTION
For conditions of use where exposure to the dust or mist is apparent, a full-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

EYE PROTECTION
Safety glasses.

SKIN PROTECTION
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

OTHER CONTROL MEASURES
Weekly examinations for skin peeling of hands and fingers. Comments: Stress good personal cleanliness and housekeeping to prevent skin contact. Wear clean work clothing daily. Do not home launder.

9. PHYSICAL PROPERTIES

Boiling Point No data found. Evaporation Rate No data found.

Melting Point	>300C (>572F)	Solubility in Water	Slightly soluble
Vapor Pressure mm Hg	No data found.	pH	No information found
Vapor Density Air = 1	5.31	Specific Gravity (H20 = 1)	1.24 @ 30C
% Volatile by Volume	0		

10. STABILITY AND REACTIVITY

STABILITY

Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID

Heat, flames, ignition sources, and incompatibles.

HAZARDOUS DECOMPOSITION PRODUCTS

Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.

HAZARDOUS POLYMERIZATION

Will not occur

INCOMPATIBLES

Strong bases, strong acids, and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

PRODUCT LD50 VALUES

Methylene Bis-Acrylamide	Oral Rat LD50 (mg/kg):	390
Methylene Bis-Acrylamide	Dermal Rabbit LD50 (mg/kg):	No data.

COMPONENT CANCER LIST STATUS

	NTP Carcinogen		
Component	Known	Anticipated	IARC Category
BIS-ACRYLAMIDE	No	No	None

12. ECOLOGICAL INFORMATION

No information found.

13. DISPOSAL CONSIDERATIONS

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (dust, solids).

14. TRANSPORT INFORMATION

Domestic (D.O.T.)

Proper Shipping Name: Toxic Solic, Organic, N.O.S.

Hazard Class: 6.1
UN Number: 2811
Packing Group: III

International (I.A.T.A. / I.M.O.)

Proper Shipping Name: Toxic Solid, Organic, N.O.S.

Hazard Class: 6.1
UN Number: 2811
Packing Group: III

15. REGULATORY INFORMATION

UNITED STATES

TSCA Regulatory:

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
BIS-ACRYLAMIDE	No	No	No	Yes	Yes

EUROPE

EEC Regulatory:

All intentional ingredients are listed on the European EINECS Inventory.

EEC LABEL SYMBOL AND CLASSIFICATION

TOXIC

R: 45-46-24/25-48/23/24/25

May cause cancer. May cause heritable genetic damage. Also toxic in contact with skin and if swallowed. Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin or if swallowed.

S: 53-45

Avoid exposure, obtain special instructions before use. In case of accident or if you feel ill, seek medical advice immediately (show the label where possible).

16. OTHER INFORMATION

NFPA CODES: Health: 2 Flammability: 1 Reactivity: 0

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.