

ITEM: 5E157 - Epoxy Clear 25ml Tube

PICK REQ: 1013781890

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS: A8189

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - A8189

Related Grainger Item: 5E157 - Epoxy Clear 25ml Tube

MATERIAL SAFETY DATA SHEET

ITW DEVCON

PART NO.: 1500

2-TON CLEAR EPOXY HARDENER

THIS PRODUCT APPEARS IN THE FOLLOWING STOCK NUMBER(S):

14260
14310
14310G
14355
14360
DA042
DA047

LAST REVISED: 07/29/02

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADENAME: 2-TON CLEAR EPOXY HARDENER

GENERAL USE:

THE FOLLOWING HEALTH HAZARD DATA PERTAIN TO THE HARDENER ONLY. WHEN FULLY CURED, THE MIXED PRODUCT IS NON-HAZARDOUS.

CHEMICAL FAMILY: ALIPHATIC AMINES

MANUFACTURER:

ITW DEVCON
30 ENDICOTT ST.
DANVERS, MA 01923

EMERGENCY INFORMATION:

EMERGENCY TELEPHONE NUMBER:
(CHEMTREC): (800) 424-9300
OTHER CALLS: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS:

INGREDIENT	ABBR.	CAS NO.	WEIGHT PERCENT	EXPOSURE LIMITS ACGIH TLV	OSHA PEL	OTHER LIMITS
AMINOETHYLPIPERAZINE	AEP	140318	15-25	N/E	N/E	N/E
NONYLPHENOL		25154523	75-85	N/E	N/E	N/E

"TLV" MEANS THE THRESHOLD LIMIT VALUE EXPOSURE (EIGHT-HOUR, TIME-WEIGHTED AVERAGE, UNLESS OTHERWISE NOTED) ESTABLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.

"STEL" INDICATES A SHORT-TERM EXPOSURE LIMIT.

"PEL" INDICATES THE OSHA PERMISSIBLE EXPOSURE LIMIT.

"N/E" INDICATES THAT NO EXPOSURE LIMIT HAS BEEN ESTABLISHED.

AN ASTERISK (*) INDICATES A SUBSTANCE WHOSE IDENTITY IS A TRADE SECRET OF OUR SUPPLIER AND UNKNOWN TO US.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE, FORM, ODOR: AMBER LIQUID WITH AMMONIA-LIKE, FISHY ODOR.

ANGER!

CORROSIVE. CAUSES EYE AND SKIN BURNS. EYE, SKIN AND RESPIRATORY IRRITANT. TOXIC BY SKIN ABSORPTION. MAY CAUSE SKIN SENSITIZATION.

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTES OF EXPOSURE:

(X) SKIN CONTACT
(X) SKIN ABSORPTION
(X) EYE CONTACT
(X) INHALATION
(X) INGESTION

SYMPTOMS OF ACUTE OVEREXPOSURE:

SKIN:
SEVERE IRRITATION OR BURNS, NECROSIS, BLISTERING AND PERMANENT INJURY. PRODUCT CAN BE ABSORBED THROUGH THE SKIN AND MAY CAUSE NAUSEA, HEADACHE AND GENERAL DISCOMFORT.

EYES:

SEVERE IRRITATION OR BURNS. MAY CAUSE LACRIMATION, CONJUNCTIVITIS, CORNEAL DAMAGE AND MAY CAUSE PERMANENT INJURY (IE. BLINDNESS).

INHALATION:

IF THE HARDENER IS POORLY VENTILATED, STRONGLY HEATED OR ATOMIZED, THE VAPOR OR MIST CAN CAUSE SEVERE IRRITATION OF THE RESPIRATORY TRACT, DAMAGE CONTACTED TISSUE AND PRODUCE SCARRING. COUGHING AND CHEST PAIN MAY RESULT, NAUSEA AND VOMITING IN SEVERE CASES.

INGESTION:

CAUSES SEVERE DAMAGE TO MUCOUS MEMBRANES IF SWALLOWED. MAY CAUSE MALAISE, HEADACHE, DISCOMFORT BLEEDING AND VOMITING OF BLOOD.

EFFECTS OF CHRONIC OVEREXPOSURE:

PROLONGED OR REPEATED OVEREXPOSURE BY SKIN CONTACT OR INHALATION MAY CAUSE SKIN SENSITIZATION, WITH ITCHING, SWELLING AND RASHES UPON FURTHER EXPOSURE. REPEATED OR PROLONGED EXPOSURE MAY CAUSE ADVERSE EYE EFFECTS (CONJUNCTIVITIS, CORNEAL DAMAGE), OR SKIN EFFECTS (RASH, IRRITATION, CORROSION). NONYPHENOL HAS CAUSED ALLERGIC SENSITIZATION IN HUMANS.

CARCINOGENICITY:

OSHA REGULATED: NO
ACGIH: NO
NATIONAL TOXICOLOGY PROGRAM: NO
INTERNATIONAL AGENCY FOR RESEARCH ON CANCER: NO
CANCER-SUSPECT CONSTITUENT(S): NONE

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE:

ASTHMA, ECZEMA, OR SKIN DISORDERS AND ALLERGIES, EYE DISEASE.

OTHER EFFECTS: NONE KNOWN.

4. FIRST AID MEASURES

FIRST AID FOR EYES:

FLUSH EYE WITH CLEAN WATER FOR AT LEAST 20 MINUTES WHILE GENTLY HOLDING EYELIDS OPEN, LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ATTENTION.

FIRST AID FOR SKIN:

IMMEDIATELY REMOVE CONTAMINATED CLOTHING AND EXCESS CONTAMINANT. FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES. WASH THOROUGHLY WITH SOAP AND WARM WATER. CONSULT A PHYSICIAN IF IRRITATION DEVELOPS.

FIRST AID FOR INHALATION:

REMOVE PATIENT TO FRESH AIR. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST.

FIRST AID FOR INGESTION:

DO NOT INDUCE VOMITING. ADMINISTER 3-4 GLASSES OF MILK OR WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS (IF SITTING) OR TO THE SIDE (IF LYING DOWN) TO PREVENT ASPIRATION. GET IMMEDIATE MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

HIGHLY INJURIOUS TO ALL TISSUES, SIMILAR TO THAT OF AMMONIA OR AMMONIA GAS. CHEMICAL PNEUMONITIS, PULMONARY EDEMA, LARYNGEAL EDEMA AND DELAYED SCARRING OF THE AIRWAY OR OTHER AFFECTED TISSUES MAY OCCUR FOLLOWING EXPOSURE. GIVE SUPPORTIVE TREATMENT SIMILAR TO THERMAL BURNS.

5. FIRE FIGHTING MEASURES

GENERAL FIRE AND EXPLOSION CHARACTERISTICS: CLASS IIIB.

EXTINGUISHING MEDIA:

() WATER
(X) CARBON DIOXIDE
(X) DRY CHEMICAL
() FOAM
(X) ALCOHOL FOAM

FLASH POINT (DEG. F): 213.8

METHOD: CC

EXPLOSIVE LIMITS IN AIR (PERCENT):

LOWER: N/D

UPPER: N/D

SPECIAL FIREFIGHTING PROCEDURES:

DO NOT ENTER CONFINED SPACE WITHOUT FULL BUNKER GEAR. FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT ALL SKIN AND EYE CONTACT WITH THIS MATERIAL. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

SUDDEN REACTION AND FIRE MAY RESULT IF PRODUCT IS MIXED WITH AN OXIDIZING AGENT. PERSONNEL IN VICINITY AND DOWNWIND SHOULD BE EVACUATED.

HAZARDOUS PRODUCTS OF COMBUSTION:

ACRID AND TOXIC FUMES WITH ORGANIC AMINES, AMMONIA, OXIDES OF CARBON AND NITROGEN.

6. ACCIDENTAL RELEASE MEASURES

SPILL CONTROL:

AVOID PERSONAL CONTACT. EVACUATE AREA. ELIMINATE IGNITION SOURCES. VENTILATE AREA.

CONTAINMENT:

DIKE, CONTAIN AND ABSORB WITH CLAY, SAND OR OTHER SUITABLE MATERIAL.

CLEANUP:

USING BUTYL RUBBER PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS, NEUTRALIZE AND REDUCE VAPORS WITH SODIUM BISULFATE. ABSORB SPILLAGE ON INERT MATERIAL AND DISCARD IN CLOSED, NONPOROUS CONTAINERS.

SPECIAL PROCEDURES:

PREVENT SPILL FROM ENTERING DRAINAGE/SEWER SYSTEMS, WATERWAYS, AND SURFACE WATERS. COLLECT RUN-OFF WATER AND TRANSFER TO DRUMS OR TANKS FOR LATER DISPOSAL. NOTIFY LOCAL HEALTH AUTHORITIES AND OTHER APPROPRIATE AGENCIES IF SUCH CONTAMINATION OCCURS.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS:

AVOID BREATHING VAPORS. AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. WASH THOROUGHLY WITH SOAP AND WATER AFTER USING AND PARTICULARLY BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES.

LAUNDRY CONTAMINATED CLOTHING AND PROTECTIVE GEAR BEFORE REUSE. DISCARD CONTAMINATED LEATHER ARTICLES.

HANDLE MIXED RESIN AND HARDENER IN ACCORDANCE WITH THE POTENTIAL HAZARD OF THE CURING AGENT USED. PROVIDE APPROPRIATE VENTILATION/RESPIRATORY PROTECTION AGAINST DECOMPOSITION PRODUCTS (SEE SECTION 10) DURING WELDING/FLAME CUTTING OPERATIONS AND TO PROTECT AGAINST DUST DURING SANDING/GRINDING OF CURED PRODUCT. DO NOT MIX WITH SODIUM NITRITE OR OTHER NITROSATING AGENTS AS CANCER-CAUSING NITROSAMINES COULD BE FORMED.

STORAGE:
STORE IN A COOL, DRY AREA AWAY FROM HIGH TEMPERATURES AND FLAMES. DO NOT STORE IN REACTIVE METAL CONTAINERS. KEEP AWAY FROM ACIDS, OXIDIZERS. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

VENTILATION:
USE VENTILATION THAT IS ADEQUATE TO KEEP EMPLOYEE EXPOSURE TO AIRBORNE CONCENTRATIONS BELOW EXPOSURE LIMITS (OR TO THE LOWEST FEASIBLE LEVELS WHEN LIMITS HAVE NOT BEEN ESTABLISHED). ALTHOUGH GOOD GENERAL MECHANICAL VENTILATION IS USUALLY ADEQUATE FOR MOST INDUSTRIAL APPLICATIONS, LOCAL EXHAUST VENTILATION IS PREFERRED (SEE ACGIH - INDUSTRIAL VENTILATION). LOCAL EXHAUST MAY BE REQUIRED FOR CONFINED AREAS (SEE OSHA 1910.146).

OTHER ENGINEERING CONTROLS: HAVE EMERGENCY SHOWER AND EYE WASH AVAILABLE.

PERSONAL PROTECTIVE EQUIPMENT:

EYE AND FACE PROTECTION:
FULL FACE SHIELD WITH CHEMICAL GOGGLES IF LIQUID CONTACT IS LIKELY, OR SAFETY GLASSES WITH SIDE SHIELDS.

SKIN PROTECTION:
CHEMICAL-RESISTANT RUBBER (E.G. NEOPRENE, BUTYL RUBBER, NITRILE) GLOVES AND OTHER PROTECTIVE GEAR AS NEEDED TO PREVENT SKIN CONTACT. THE BREAKTHROUGH TIME OF THE SELECTED GLOVE(S) MUST BE GREATER THAN THE INTENDED USE PERIOD.

RESPIRATORY PROTECTION:
NONE NEEDED IN NORMAL USE WITH PROPER VENTILATION. IN POORLY VENTILATED AREAS USE NIOSH APPROVED AMMONIA VAPOR CARTRIDGE RESPIRATOR FOR UNCURED PRODUCT, DUST/PARTICLE RESPIRATOR DURING GRINDING/SANDING OPERATIONS FOR CURED PRODUCT, OR FRESH AIRLINE RESPIRATOR AS EXPOSURE LEVELS DICTATE (SEE OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY: 0.97

BOILING POINT (DEG. F): >392

MELTING POINT (DEG. F): N/D

DENSITY (AIR = 1): >1

VAPOR PRESSURE (MMHg): <1 MMHg AT 70 DEG. F

EVAPORATION RATE (BUTYL ACETATE = 1): <1

VOC (GRAMS/LITER): 0

SOLUBILITY IN WATER: COMPLETELY

PERCENT VOLATILE BY VOLUME: 0

pH (5% SOLUTION OR SLURRY IN WATER): ALKALINE

PERCENT SOLIDS BY WEIGHT: 100

10. STABILITY AND REACTIVITY

THIS MATERIAL IS CHEMICALLY STABLE. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

CONDITIONS TO AVOID:
EXTREME HEAT OR OPEN FLAME. PRODUCT SLOWLY CORRODES COPPER, ALUMINUM, ZINC AND GALVANIZED SURFACES.

INCOMPATIBLE MATERIALS:
OXIDIZERS, ACIDS, CHLORINATED ORGANIC COMPOUNDS, REACTIVE METALS (E.G. Na, Ca, ZINC), SODIUM/CALCIUM HYPOCHLORITE, PEROXIDES, METALS REACTIVE WITH HYDROXYL COMPOUNDS.

HAZARDOUS PRODUCTS OF DECOMPOSITION:
ACRID AND TOXIC SMOKE, ORGANIC AMINES, CARBON AND NITROGEN OXIDES, NITRILES, CYANILIC ACID, ISOCYANATES, CYANOGENS, NITROSAMINES, AMIDES, CARBAMATES. AMMONIA WHEN HEATED.

CONDITIONS UNDER WHICH HAZARDOUS POLYMERIZATION MAY OCCUR:
HEAT IS GENERATED WHEN RESIN IS MIXED WITH CURING AGENTS; RUN-A-WAY CURE REACTIONS MAY CHAR AND DECOMPOSE THE RESIN, GENERATING UNIDENTIFIED FUMES AND VAPORS WHICH MAY BE TOXIC.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS:
LD50 (RAT): 1620 MG/KG

ACUTE DERMAL EFFECTS:
LD50 (RABBIT): >1000 MG/KG (ESTIMATE)

ACUTE INHALATION EFFECTS:
(RAT): NOT AVAILABLE.
DURATION: HOURS.

EYE IRRITATION: NOT AVAILABLE.

SUBCHRONIC EFFECTS: NOT AVAILABLE.

CARCINOGENICITY, TERATOGENICITY, AND MUTAGENICITY: NOT AVAILABLE.

OTHER CHRONIC EFFECTS: NONYPHENOL HAS CAUSED ALLERGIC SENSITIZATION IN HUMANS.

TOXICOLOGICAL INFORMATION ON HAZARDOUS CHEMICAL CONSTITUENTS OF THIS PRODUCT:

CONSTITUENT	ORAL LD50 (RAT)	DERMAL LD50 (RABBIT)	INHALATION LC50 4HR, (RAT)
AMINOETHYLPIPERAZINE	2140 MG/KG	880 MG/KG	N/D
NONYPHENOL	1620 MG/KG	2140 MG/KG	>1 MG/L

'N/D' = 'NOT DETERMINED'

12. ECOLOGICAL INFORMATION

ECOTOXICITY: NOT AVAILABLE.

MOBILITY AND PERSISTENCE: NOT AVAILABLE.

ENVIRONMENTAL FATE: NOT AVAILABLE.

13. DISPOSAL CONSIDERATIONS

PLEASE SEE ALSO SECTION 15, REGULATORY INFORMATION.

WASTE MANAGEMENT RECOMMENDATIONS:
IF THIS HARDENER BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40CFR 261). DISPOSE OF ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. INCINERATION IS THE PREFERRED METHOD OF DISPOSAL.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

TECHNICAL NAME: N-AMINOETHYLPIPERAZINE AND NONYPHENOL

HAZARD CLASS: 8

UN NUMBER: 3267

PACKING GROUP: III

EMERGENCY RESPONSE GUIDE NO.: 153

IMDG PAGE NUMBER: N/A

OTHER: MARINE POLLUTANT (NONYPHENOL)

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA:
ALL INGREDIENTS OF THIS PRODUCT ARE LISTED, OR ARE EXEMPT FROM LISTING, ON THE TSCA INVENTORY.

THE FOLLOWING RCRA CODE(S) APPLIES TO THIS MATERIAL IF IT BECOMES WASTE:
NONE

REGULATORY STATUS OF HAZARDOUS CHEMICAL CONSTITUENTS OF THIS PRODUCT:

CONSTITUENT	EXTREMELY HAZARDOUS*	TOXIC CHEMICAL**	CERCLA RQ (LBS)	TSCA 12B EXPORT NOTIFICATION
AMINOETHYLPIPERAZINE	NO	NO	0.0	NOT REQUIRED
NONYPHENOL	NO	NO	0.0	NOT REQUIRED

*CONSULT THE APPROPRIATE REGULATIONS FOR EMERGENCY PLANNING AND RELEASE REPORTING REQUIREMENTS FOR SUBSTANCES ON THE SARA SECTION 301 EXTREMELY HAZARDOUS SUBSTANCE LIST.

**SUBSTANCES FOR WHICH THE "TOXIC CHEMICAL" COLUMN IS MARKED "YES" ARE ON THE SARA SECTION 313 LIST OF TOXIC CHEMICALS, FOR WHICH RELEASE REPORTING MAY BE REQUIRED. FOR SPECIFIC REQUIREMENTS, CONSULT THE APPROPRIATE REGULATIONS.

FOR PURPOSES OF SARA SECTION 312 HAZARDOUS MATERIALS INVENTORY REPORTING, THE FOLLOWING HAZARD CLASSES APPLY TO THIS MATERIAL:
IMMEDIATE HEALTH HAZARD
DELAYED HEALTH HAZARD

CANADIAN REGULATIONS:

WHMIS HAZARD CLASS(ES): E ; D2B

ALL COMPONENTS OF THIS PRODUCT ARE ON THE DOMESTIC SUBSTANCES LIST.

16. OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) RATINGS:
HEALTH 3*
FLAMMABILITY 1
REACTIVITY 0

OTHER INFORMATION:
THIS MATERIAL HAS BEEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF 49CFR 173.136 AND FOUND NOT TO BE CORROSIVE FOR TRANSPORTATION.

THE INFORMATION AND RECOMMENDATIONS IN THIS DOCUMENT ARE BASED ON THE BEST INFORMATION AVAILABLE TO US AT THE TIME OF PREPARATION, BUT WE MAKE NO OTHER WARRANTY, EXPRESS OR IMPLIED, AS TO ITS CORRECTNESS OR COMPLETENESS, OR AS TO THE RESULTS OF RELIANCE ON THIS DOCUMENT.

MSDS0619

ORDER: 1013781890

ITEM: 5E157 - Epoxy Clear 25ml Tube

HAZMAT: 5E157

HAZARD MATERIAL WARNING SHEET (HAZMAT)

When shipment is complete, retain for daily Hazmat audit

GRAINGER SHIPPING INFORMATION

STOCK # : 5E157
MSDS # : A8189
FREIGHT CODE : 0800
DOT PROPER SHIP NAME : CONSUMER COMMODITY, ORM-D

UPS RESTRICTIONS : 20 LB. & UNDER REQUIRES 200 LB. BSC/32 ECT, 21 LB. & OVER REQUIRES 275 LB. BSC/44 ECT.

HAZARDOUS CLASS NUMBER : ORM-D
UN ID # :
PACKING GROUP :
SHIPPING LABEL : Consumer Commodity ORM-D

LIMITED QUANTITY : YES
CARTON INSTRUCTIONS : CAN REPACK IN GRAINGER S CARTON
DOT/UPS EXEMPTION NO. :
COMMENTS : HAZARDOUS MATERIAL. DO NOT SHIP AIR!!
SHIPPING-PAPERS :

PLACARD OFFERED ? YES () NO () PLEASE MARK ONE
