



Revision Number: 003.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Catalyst 11(75g), 2 oz Amber b	IDH number: 1416577
Product type: Epoxy Hardener	Item number: 441427
Restriction of Use: None identified	Region: United States
Company address: Henkel Electronic Materials LLC 14000 Jamboree Road Irvine, CA 92606	Contact information: Telephone: 1.888.9.HENKEL (1.888.943.6535) MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887 Internet: www.henkel.com/electronics

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: HARMFUL IF SWALLOWED OR IN CONTACT WITH SKIN.
CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.
TOXIC IF INHALED.
MAY CAUSE DROWSINESS OR DIZZINESS.
SUSPECTED OF CAUSING GENETIC DEFECTS.
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	4
ACUTE TOXICITY INHALATION	3
ACUTE TOXICITY DERMAL	4
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves and clothing. Use personal protective equipment as required.

Response: If SWALLOWED: Immediately call poison control or physician if you feel unwell. IF ON SKIN:

Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. Call a poison control center or physician. Rinse mouth. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Storage:
Disposal:

Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
1,3-Phenylenediamine	108-45-2	60 - 100
N-Methyl-2-pyrrolidone	872-50-4	10 - 30

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products:

Oxides of carbon, oxides of nitrogen, irritating organic vapors.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:

Do not allow product to enter sewer or waterways.

Clean-up methods:

Remove all sources of ignition. Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:

Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.

Storage:

For safe storage, store between 0.0 °C (32°F) and 40.0 °C (104°F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Protect from direct sunlight.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
1,3-Phenylenediamine	0.1 mg/m ³ TWA	None	None	None
N-Methyl-2-pyrrolidone	None	None	10 ppm (40 mg/m ³) TWA (SKIN)	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Liquid

Color:

Light brown

Odor:

Amine

Odor threshold:

Not available.

pH:

9.20 (1% solution)

Vapor pressure:

< 0.345 mm hg (25 °C (77°F))

Boiling point/range:

> 200.0 °C (> 392°F)

Melting point/ range:

Not available.

Specific gravity:

1.11

Vapor density:

3.4 (Air = 1)

Flash point: 95.60 °C (204.08 °F)
 Flammable/Explosive limits - lower: Not available.
 Flammable/Explosive limits - upper: Not available.
 Autoignition temperature: 560.00 °C (1,040°F)
 Evaporation rate: Not available.
 Solubility in water: Soluble
 Partition coefficient (n-octanol/water): Not available.
 VOC content: 28.5 %; 285 g/l
 Viscosity: Not available.
 Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: None under normal processing.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Irritating organic fragments.

Incompatible materials: Oxidizing agents. Strong acids. Alkalis.

Reactivity: Not available.

Conditions to avoid: High temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation: Toxic by inhalation. May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.

Skin contact: Harmful in contact with skin. Causes skin irritation. May cause allergic skin reaction.

Eye contact: Causes serious eye irritation.

Ingestion: Harmful if swallowed. Ingestion of this product may cause nausea, vomiting and diarrhea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
1,3-Phenylenediamine	Oral LD50 (RAT) = 650 mg/kg	Allergen, Bladder, Blood, Central nervous system, Developmental, Irritant, Kidney, Liver, Mutagen, Skin
N-Methyl-2-pyrrolidone	Oral LD50 (RAT) = 4,320 mg/kg Oral LD50 (RAT) = 3,914 mg/kg Dermal LD50 (RABBIT) = 8,000 mg/kg	Blood, Bone Marrow, Central nervous system, Immune system, Irritant, Lung

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
1,3-Phenylenediamine	No	No	No
N-Methyl-2-pyrrolidone	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Toxic, liquids, organic, n.o.s. (Phenylene diamine)
Hazard class or division: 6.1
Identification number: UN 2810
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Toxic liquid, organic, n.o.s. (Phenylene diamine)
Hazard class or division: 6.1
Identification number: UN 2810
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Phenylene diamine)
Hazard class or division: 6.1
Identification number: UN 2810
Packing group: III
Marine pollutant: Phenylene diamine

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). 1,3-Phenylenediamine (CAS# 108-45-2). N-Methyl-2-pyrrolidone (CAS# 872-50-4).
California Proposition 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

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