SAFETY DATA SHEET

Epoxy Hardeners NPR-3201, NPR-3202, NPR-3203, NPR-3204, NPR-3205

Version 3.2
Date of issue: 9/1/2023

1. COMPANY IDENTIFICATION AND CHEMICAL PRODUCT

MANUFACTURER Neopoxy LLC
23964 Clawiter Road
Hayward, CA 94545

PHONE (510) 782-1290
FAX (510) 782-1292

EMERGENCY PHONE (24 HOURS) **(800) 424-9300**

PRODUCT NAME Epoxy Hardeners NPR-3201, NPR-3202, NPR-3203, NPR-3204, NPR-3205

CHEMICAL NAME Reactive mixture

COMPONENTS		**CAS NUMBER**	**PERCENT**
1	Aminated oligomer*		85-95
2	2-Methylpentamethylenediamine	84852-15-3	5-10
3	2,4,6 Tris-dimethylaminomethylphenol	13463-67-7	4-6
4	Hydrophobic fumed silica	67762-90-7	0-5

*The specific chemical identity of this component is trade secret information

2. HAZARDS IDENTIFICATION

GSH Certification

Acute toxicity - Oral Category 4
Acute toxicity - Inhalation Category 4
Skin corrosion - Category 1C
Serious eye damage - Category 1
Skin sensitivity - Category 1

GHS label elements

Hazard pictograms/symbols:

Signal word: Danger

Hazard statements:

H314: Causes severe skin burns and eye damage

Precautionary statements:

Prevention:
P260: Don't breathe dust/fume/gas/mist/vapors/mist/spray
P264: Wash hands thoroughly after handling
P280: Wear protective gloves/protective clothing/eye/face protection

Response:	P301+P330+P331: if swallowed: rinse mouth. Do not induce vomiting P303+P361+P353: if on skin (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing P305+P351+P338:if in eyes: rinse cautiously with water for several minutes. Remove contact lenses if presented and easy to do. Continue rinsing. P310: immediately call poison center/doctor. P363: wash contaminated clothing before reuse. P405: Store locked up.
Disposal:	P501: disposal of contents/container to be specified in accordance with regulations.

Hazards not otherwise classified

Physical hazards not otherwise classified:	No Additional information
Health hazards not otherwise classified:	No Additional information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration, Weight
Aminated oligomer*	-	85-95
2-Methylpentamethylenediamine	84852-15-3	5-10
2,4,6 Tris-dimethylaminomethylphenol	13463-67-7	4-6
Hydrophobic fumed silica	67762-90-7	0-5

*Chemical Family: Aliphatic Amines. The remaining components are trade secret.

4. FIRST AID MEASURES

General advice:	If irritation or other symptoms occur or persist from any root of exposure, remove affected individual from the area: see a physician/get medical attention.
Eye contact:	Immediately flush eyes with plenty of clean water for an extended time, not less than fifteen (15) minutes. Flush longer if there is any indication of residual chemical in the eye. Ensure adequate flushing of the eyes by separating the eyelids with fingers and roll eyes in a circular motion. Get medical attention immediately
Skin contact:	Immediately remove contaminated clothing and shoes. Wash the affected area with plenty of soap and water until no evidence of chemical remains (at least 15-20 min). Launder clothing before reuse.
Ingestion:	Never induce vomiting. Never give anything by mouth to an unconscious person. Rinse out the mouth with water. Get medical attention immediately.
Inhalation:	If affected remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Supplemental oxygen may be indicated. Call a POISON CENTER or doctor/physician if you feel unwell.
Protection of first-aid responders:	Wear proper personal protective clothing and equipment.

Most important symptoms and effects, both acute and delayed. Burns, Eye redness and pain, irritation. Pre-existing skin problems may be aggravated by prolonged or repeated contact. See section 11 for additional information. Indication of any immediate medical attention and special treatment needed if necessary. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable	NFPA Class IIIB (Combustible liquid): use water spray, ABC dry chemical, foam or carbon dioxide (CO2). Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposure. Limestone powder.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the	Unusual fire/explosion hazards: Product is not considered a fire hazard, but will burn if ignited. Hot vapor

chemical:	or mist may be susceptible to spontaneous combustion when mixed with air. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure changes. Therefore, ignition may occur below published ignition temperatures. Use of this product in the processes involving elevated temperatures, vacuum if subject to sudden ingress of air, sudden escape of vapor or mist, etc. Must be thoroughly evaluated to assure safe operations. Run off water from firefighting may have corrosive effects. Closed container may rapture (due to build up pressure) when exposed to extreme heat. See Section 10 (hazardous decomposition products) for additional information.
Special protective equipment and precautions for fire-fighters:	Wear self contained breathing apparatus (SCBA) equipped with a full face piece and operated in a pressure-demand mode (or other positive pressure mode) and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent significant exposure to hazardous gases from combustion, burning or decomposition. In an enclosed or poorly ventilated area, wear SCBA during cleanup immediately after a fire as well as during the attack phase of firefighting operations. See Section 9 for additional information.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective, equipment, emergency procedures:	See Section 8 for recommendations on the use of personal protective equipment. If spilled in enclosed area, ventilate. Eliminate ignition sources. Personal Protective equipment must be worn.
Environmental precautions:	Do not flush liquid into public sewer, water systems or surface waters.
Method and materials for containment and cleaning up:	Contain by diking with sand, earth or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb spill with an inert material. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and launder before reuse. CAUTION: Spilled liquid and dried film are slippery. Use care to avoid falls.

7. HANDLING AND STORAGE

Precautions for safe handling:	As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Do not get in eyes, on skin or clothing. Do not breathe dust, vapor, aerosol, mist of gas. Do not ingest , taste or swallow. Wash thoroughly after handling the product. Always wash up before eating, smoking or using the facilities. Use under well-ventilated conditions. Wash contaminated clothing before reuse. Provide eyewash fountains and safety showers in the work area.
Conditions for safe storage, including any incompatibilities.	Store cool and dry, under well-ventilated conditions. Store this material away from incompatible substances (see section 10). Do not store in open, unlabeled or mislabeled containers. Keep container closed when not in use. Do not reuse any empty container without commercial cleaning or reconditioning. Empty container contain residual product which may exhibit hazards of product. Store product where temperature are below 122oF (50oC)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Environmental control parameters:

Occupational exposure limits (OEL):

Chemical Name	ACGIH - TWA/Ceiling	ACGIH - STEL
	N/E	N/E
2-Methylpentane-1,5-diamine N/E N/E		

Chemical Name	OSHA - PEL	OSHA - STEL	OSHA - Ceiling	AIHA - WEEL
2-Methylpentane-1,5-diamine N/E N/E N/E N/E	N/E	N/E	N/E	N/E

N/E=Not established (no exposure limits established for the listed substances for listed country/region/organization).

Engineering Controls	Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH,45240-1634, USA
Eye/Face Protection	Safety glasses or goggles required

Skin Protection	Wear chemical resistant (impervious) gloves
Respiratory Protection	Wear a respirator approved by NIOSH/MSHA (e.g., an organic vapor respirator, a full face air purifying respirator for organic vapors, or a self-contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the exposure limit(s) of any chemical substance listed in this MSDS. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

9. PHYSICAL AND CHEMICAL PROPERTIES

Color	*Yellow*	**Physical State**	*Viscous liquid (>130,000 cPs)*
Odor	*Musty amine odor*	**Boiling Point, °F**	*>110°C (>230°F)*
Water Solubility	*Negligible (<0.1%)*	**Melting Point, °F**	*Not Determined*
Density, g/ml	*0.95-1.0*	**Flash Point-Closed Cup**	*>200 °F*
Weight per gal	7.90-8.32	**pH - 1% Solution**	*11-12*

10. STABILITY AND REACTIVITY

Stability	This product is stable
Hazardous Polymerization	Hazardous polymerization will not occur
Conditions to Avoid	Do not expose to excessive heat or ignition sources.
Incompatibility with other materials	Avoid contact with strong oxidizing agents and reducing agents. Depending on the amount and specific materials involved, contact can result in intense heat, boiling, flame development, explosion or toxic gas generation. Product reacts with isocyanates.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, aliphatic and aromatic hydrocarbons, and/or others not yet determined. Thermal processing may produce volatiles, possibly including cyclohexene carbonitrile.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

General:	Caution must be exercised through the prudent use of protective equipment and handling procedures to minimize exposure. Health effects are particularly evident when product is heated. 2-METHYLPENTANE-1,5-DIAMINE: Skin contact may cause skin burns or ulceration. Eye contact may cause eye corrosion with corneal or conjunctival ulceration. Inhalation may cause irritation of the upper respiratory passages, with coughing and discomfort. Ingestion may cause weight loss. Higher exposures may cause severe burns of the mouth and tissues of the upper gastrointestinal l tract with severe pain, bleeding, vomiting, diarrhea and collapse of blood pressure; or temporary lung irritation effects with cough, discomfort, difficulty breathing, or shortness of breath.
Eyes:	Causes serious eye damage.
Skin:	Causes skin burns. 2-2-METHYLPENTANE-1,5-DIAMINE may significantly permeate the skin.
Inhalation:	Exposure to vapors or mists may cause severe irritation and burns of the nose, throat and respiratory tract.
Ingestion:	Ingestion may cause severe irritation and burns of the mouth, throat and digestive tract.
Symptoms/effects, acute and delayed:	Burns, Eye redness and pain, Irritation
Acute toxicity information:	Not classified (based on available data, the classification criteria are not met). ATEmix (oral): >5000 mg/kg. ATEmix (dermal): >5000 mg/kg. ATEmix (inhale.): >5 mg/L, 4 hours.
Carcinogenicity:	The components of this mixture are not known to be listed or regulated by IARC (Group 1 or 2), NTP, OSHA or ACGIH.
Germ cell mutagenicity:	Not classified (no relevant information found). 2-METHYLPENTANE-1,5-DIAMINE: Mutagenic assays were negative for both in vivo and in vitro assays
Reproductive toxicity:	Not classified (no relevant information found). 2-METHYLPENTANE-1,5-DIAMINE (READ-ACROSS): Reproductive toxicity (hexamethylene diamine), 2-generation oral study in rats: NOAEL (no-observed adverse-effect-level) of 500mg/kg bw/day. Developmental toxicity (hexamethylene diamine): NOAEL of 300 mg/kg bw/day can be established for developmental

Specific target organ toxicity (STOT) - single exposure: Not classified (no relevant information found).

Specific target organ toxicity (STOT) - repeated exposure: Not classified (no relevant information found).

2-METHYLPENTANE-1,5-DIAMINE: Repeated dose toxicity study, rat, inhalation, 14 days: LOAEC (Lowest-Observed-Adverse-Effect-Concentration) - 9.2 mg/m3 (respiratory tract). Repeated dose study, oral, rats (read-across, 2-diaminocyclohexane): NOAEL (no-observed-adverse-effect-level) 150 mg/kg bw/day.

Aspiration hazard:	Not classified (based on available data, the classification criteria are not met).
Other toxicity information:	No additional information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	No ecological testing has been conducted on this product.
Persistence and degradability:	No specific information available.
	Chemical Name Biodegradation
	2-Methylpentane-1,5-diami Readily biodegradable (OECD 301D)
Bioaccumulative potential:	No specific information available.
Mobility in soil:	No specific information available.
Other adverse effects:	No additional information available.

13. DISPOSAL CONSIDERATIONS

HAZARDOUS WASTE: Dispose of waste (incinerate) in a RCRA permitted hazardous waste disposal facility. Corrosive: EPA Hazardous Waste No. D002. Federal Resource Conservation and Recovery Act (RCRA), 40CFR261.22. Federal, state and local regulations where the waste material is generated, treated, and/or disposed of must be examined to verify the appropriate waste classification.

See Section 8 for recommendations on the use of personal protective equipment.

14. TRANSPORT INFORMATION

The information below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions.

UN number: UN2735

UN proper shipping name:	Amines, liquid, corrosive, n.o.s. (2-Methyl pentamethylenediamine)
Transport hazard class(es):	U.S. DOT hazard class: 8
	Canada TDG hazard class: 8
	Europe ADR/RID hazard class: 8
	IMDG Code (ocean) hazard class: 8
	ICAO/IATA (air) hazard class: 8
Packing group:	I
Environmental hazards:	Marine pollutant: Not Applicable
Hazardous substance (USA):	Not Applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	Not Applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:
U.S. federal and state regulations/legislation:

This SDS has been prepared in accordance with the hazard criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Reportable Quantity (RQ):
Not applicable

U.S. Superfund Amendments and Reauthorization Act (SARA) - 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 and 40 CFR 372: None known

U.S. TSCA Section 12(b) Export Notification:
This product is not subject to TSCA 12(b) reporting requirements.

California Proposition 65:
The following ingredient(s) present in the product is [are] known to the State of California to cause cancer:
None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.
The following ingredient(s) present in the product is [are] known to the State of California to cause birth defects or other reproductive harm:
None known to be present or none in reportable amounts for occupational exposure as per OSHA's approval of the California Hazard Communication Standard, Federal Register, page 31159 ff, 6 June 1997.
Notes: No additional information

Canada regulations/legislation:

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.
Notes: CANADIAN DSL: One or more components are listed on the NDSL.

Chemical inventories:

Regulation	Status
Australian Inventory of Chemical Substances (AICS):	Y
Canadian Domestic Substances List (DSL):	N
Canadian Non-Domestic Substances List (NDSL):	Y
China Inventory of Existing Chemical Substances (IECSC):	Y
European EC Inventory (EINECS, ELINCS, NLP):	Y
Japan Existing and New Chemical Substances (ENCS):	N
Japan Industrial Safety and Health Law (ISHL):	N
Korean Existing and Evaluated Chemical Substances (KECL):	Y
New Zealand Inventory of Chemicals (NZIoC):	N
Philippines Inventory of Chemicals and Chemical Substances (PICCS):	N
Taiwan Inventory of Existing Chemicals:	Y
U.S. Toxic Substances Control Act (TSCA):	Y

Europe REACh (EC) 1907/2006: This product is considered a polymer under Regulation (EC) 1907/2006 and is exempt from the requirement for registration. Applicable monomers/other reactants are registered, exempt or otherwise compliant. REACh is only relevant to substances either manufactured or imported into the EU. Emerald Performance Materials has met its obligations under the REACh regulation. REACh information regarding this product is provided for informational purposes only. Each Legal Entity may have differing REACh obligations, depending on their place in the supply chain. For material manufactured outside of the EU, the importer of record must understand and meet their specific obligations under the regulation.

16. OTHER INFORMATION

SDS Revision date: 9/1/2023
HMIS (Hazardous Materials Identification System) Ratings:
Health: 3 Flammability: 1 Physical hazard: 1 Personal Protection: X
NFPA (National Fire Protection Association) Ratings:
Health: 3 Flammability: 1 Instability: 1

Key: 0=Insignificant; 1=Slight; 2=Moderate; 3=High; 4=Extreme. An asterisk appearing after the HMIS Health numerical rating denotes a chronic hazard.
Hazardous Materials Identification System (HMIS), National Paint and Coating Association, rating applies to product "as packaged" (i.e., ambient temperature). Ratings are based upon HMIS® III and NFPA 704 (2007). An asterisk appearing after the HMIS Health® III numerical rating denotes a chronic hazard. National Fire Protection Association (NFPA) rating identifies the severity of hazards of material during a fire emergency (i.e., "on fire").

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA WEEL: American Industrial Hygiene Association (AIHA) Workplace Environmental Exposure Level (WEEL)
N/A: Not Applicable
N/E: None Established
STEL: Short Term Exposure Limit
TWA: Time Weighted Average (exposure for 8-hour workday)

Users Responsibility/Disclaimer of Liability:
As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.

Neopoxy LLC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Neopoxy LLC assumes no responsibility for injury from the use of products described herein.
This Safety Data Sheet (SDS) was complied with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS.