

## 1. Product Identification

<b>Product name</b>	Pettit Flexpoxy Part B
<b>SDS Number</b>	1707620B
<b>Product type</b>	Amine Polymer Mixture
<b>Recommended use of the chemical and restrictions on use</b>	Directed at, but not limited to, the repair of similar and dissimilar materials.
<b>Restrictions</b>	None known.
<b>Manufacturer/Supplier information</b>	
<b>Company name</b>	KOP-COAT INC./KOP-COAT MARINE
<b>Address</b>	36 Pine Street Rockaway, NJ 07866 United States
<b>Telephone</b>	1-973-625-3100
<b>Emergency Contact</b>	CHEMTREC (U.S. and CANADA) 1-800-424-9300 CHEMTREC (Outside the U.S.) 1-703-527-0585

## 2. Hazard(s) Identification

<b>Classification of substance or mixture/Signal Word</b>	<b>DANGER</b> Acute Toxicity (Dermal) – Category 4 Skin Corrosion/Irritation – Category 1 Serious Eye Damage/Eye Irritation – Category 1 Skin Sensitization – Category 1 Toxic to Reproduction [Fertility, Unborn child] – Category 2 Acute Aquatic Toxicity – Category 3 Chronic Aquatic Toxicity – Category 3
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**GHS Label Elements**  
**Hazard Pictograms**



<b>Hazard Statements/Classification of substance or mixture</b>	H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H361 Suspected of damaging fertility or the unborn child. H402 Harmful to aquatic life. H412 Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
<b>Precautionary Statements</b> <b>Prevention</b>	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood.

	P260 Do not breathe vapors.
	P261 Avoid breathing vapors.
	P264 Wash hands and exposed skin thoroughly after handling.
	P272 Contaminated clothing should not be allowed out of the workplace.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/protective clothing.
<b>Response</b>	P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P303+P361+P353 IF ON SKIN (or hair): 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 present and easy to do. Continue rinsing.
	P308+P313 IF exposed or concerned: Get medical advice/attention.
	P310 Immediately call a POISON CENTER/doctor.
<b>Storage</b>	P362+P364 Take off contaminated clothing and wash it before reuse.
	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	P405 Store locked up.
	P501 Disposal of contents/container to be specified in accordance with regulations.
<b>Hazards not otherwise classified (HNOC)</b>	None known.

### 3. Composition/Information On Ingredients

Chemical Name	CAS Number	Content (%)
Aliphatic Amines	Trade Secret	70 – 75%
Alkyl Phenols	Trade Secret	15 – 20%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

### 4. First-Aid Measures

<b>Skin contact</b>	Get medical attention immediately. Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Safety shower should be located in immediate work area.
<b>Eye contact</b>	Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Suitable emergency eye wash facility should be available in work area.
<b>Ingestion</b>	Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Inhalation</b>	Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen

by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Indication of immediate medical attention and special treatment needed, if necessary**

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled or if extended exposure to eye and skin tissues have occurred.
Specific treatments	No specific treatment.

## 5. Fire-Fighting Measures

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Suitable extinguishing media	Alcohol-resistant foam, dry chemical, dry sand, limestone powder or carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	Use of water may result in the formation of environmentally hazardous products. Do not allow run-off from the firefighting to enter drains or watercourses.
Specific hazards arising from the chemical	May generate ammonia gas. May generate toxic nitrogen oxide gases. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous decomposition products	May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes.
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.
Further information	None known.

## 6. Accidental Release Measures

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Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Emergency procedures	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".
Methods and materials for containment/cleanup	<p>Small Spill: Stop leak if without risk. Move containers from spill area. Absorb with an inert dry absorbent material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Wash the spill area clean with water and detergent, observing environmental requirements.</p> <p>Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with inert dry absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Wash the spill area clean with</p>

<b>Environmental precautions</b>	<p>water and detergent, observing environmental requirements. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p> <p>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).</p>
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## 7. Handling and Storage

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<b>Precautions for safe handling</b>	<p>Put on appropriate personal protective equipment (see Section 8). Avoid exposure and obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.</p>
<b>Precautions/Recommendations for safe/proper storage</b>	<p>Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>

## 8. Exposure Controls/Personal Protection

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<b>Occupational Exposure Limits</b>	Not established.
<b>Appropriate engineering controls</b>	Use only with adequate ventilation. Keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide readily accessible eye wash stations and safety showers.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
<b>Individual protection measures/Personal protective equipment</b>	
<b>Eye/face protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: chemical splash goggles.
<b>Hand protection</b>	<p>Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.</p> <p>Recommended gloves:</p> <ul style="list-style-type: none"> <li>Neoprene</li> <li>PVC disposable</li> <li>Butyl-rubber</li> </ul>

	Nitrile rubber
<b>Skin protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Long sleeve shirts and pants without cuffs are minimal recommended.
<b>Respiratory protection</b>	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Special instructions for protection and hygiene</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Discard contaminated leather items. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. Physical and Chemical Properties

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<b>Chemical family</b>	Amine Mixture
<b>Appearance</b>	Clear Paste
<b>Physical State</b>	
<b>Form</b>	Paste
<b>Color</b>	Clear
<b>Odor</b>	Ammonia-like odor
<b>Density (Specific Gravity)</b>	1.05
<b>Viscosity</b>	70,000 – 100,000 CPS
<b>pH</b>	Not available
<b>Melting point/freezing point</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not available
<b>Evaporation rate</b>	Slower than ether
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/lower flammability limit (by volume)</b>	Not available
<b>Material VOC</b>	None
<b>Vapor density</b>	Heavier than air
<b>Relative density</b>	Not available
<b>Solubility in water</b>	Negligible
<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available

## 10. Stability and Reactivity

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<b>Reactivity</b>	No specific test data related to reactivity is available for this product or its ingredients.
<b>Chemical Stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	Epoxy resins and epoxy resin hardeners react with each other producing heat. They should not be mixed with each other under uncontrolled conditions or in a large mass as the ensuing exothermic reaction may produce heat, smoke and hazardous decomposition products. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
<b>Incompatible materials</b>	Strong oxidizing agents. Mineral and organic acids Sodium hypochlorite Reactive metals (e.g. sodium, calcium, zinc etc.).
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Toxic fumes may be evolved when product is burned. Decomposition products may include: Nitric acid Ammonia Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO2) Aldehydes Flammable hydrocarbon fragments Note: Nitrogen oxide can react with water vapors to form corrosive nitric acid. N- Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes into contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.
<b>Other hazards</b>	None known.

## 11. Toxicological Information

**Acute Health Hazard (components)** No comprehensive data (ingestion, inhalation, dermal) on mixture (product).

Component	Result	Species	Dose	Exposure
N-aminoethylpiperazine	LD50 Oral	Rat	2,097 mg/kg	-
	LD50 Dermal	Rabbit	866 mg/kg	-
Polyoxypropylenediamine	LD50 Oral	Rat	2,885.3 mg/kg	-
	LD50 Dermal	Rabbit	2,979.7 mg/kg	-
Nonyl Phenol	LD50 Oral	Rat	1,412 mg/kg	-
	LD50 Dermal	Rabbit	2,031 mg/kg	-

**Irritation/Corrosion (components)** Classifies as Skin Corrosion Category per positive results in Corrositex testing.

Component	Result	Species	Test	Exposure
N-aminoethylpiperazine	Corrosive	Rabbit	Skin	4h
	Severe Irritant	Rabbit	Eye	24h
Polyoxypropylenediamine	Corrosive	Rabbit	Skin	4h
	Corrosive	Rabbit	Eye	24h

**Sensitization** No data is available for this product.

Component	Result	Species	Test	Exposure
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N-aminoethylpiperazine	Sensitizing	Guinea Pig	Skin	-
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<b><u>Mutagenicity</u></b>	No data is available for this product.
<b><u>Carcinogenicity</u></b>	No data is available for this product.
<b><u>Reproductive Toxicity</u></b>	No data is available for this product.
<b><u>Teratogenicity</u></b>	No data is available for this product.
<b><u>Specific target organ toxicity (single exposure)</u></b>	No data is available for this product.
<b><u>Specific target organ toxicity (repeated exposure)</u></b>	No data is available for this product.
<b><u>Aspiration hazard</u></b>	No data is available for this product.
<b><u>Potential acute health effects</u></b>	
<b>Eye Contact</b>	Causes serious eye damage.
<b>Inhalation</b>	May give off vapor that is irritating to the respiratory system.
<b>Skin Contact</b>	Causes severe burns. Harmful in contact with skin. May cause an allergic skin reaction.
<b>Ingestion</b>	May cause burns to mouth, throat and stomach.
<b><u>Symptoms related to the physical, chemical and toxicological characteristics</u></b>	
<b>Eye Contact</b>	Adverse symptoms may include the following: Pain Watering Redness
<b>Inhalation</b>	Adverse symptoms may include the following: Coughing Reduced fetal weight Increase in fetal deaths Skeletal malformations
<b>Skin Contact</b>	Adverse symptoms may include the following: Irritation Pain Redness Blistering of skin Reduced fetal weight Increase in fetal deaths Skeletal malformations
<b>Ingestion</b>	Adverse symptoms may include the following: Stomach pains Reduced fetal weight Increase in fetal deaths Skeletal malformations
<b><u>Delayed and immediate effects and also chronic effects from short and long term exposure</u></b>	
<b><u>Potential chronic health effects</u></b>	
<b>General</b>	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	No significant effects or critical hazards.
<b>Mutagenicity</b>	A component in this product indicate mutagenic activity.
<b>Teratogenicity</b>	No significant effects or critical hazards.

**Developmental effects** No significant effects or critical hazards.

**Fertility effects** No significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates (ATEmix)**

Route	ATE value
Oral	2,456.8 mg/kg
Dermal	1,785.8 mg/kg
Inhalation (vapors)	N/A

**12. Ecological Information**

**Ecotoxicity**

No data is available on the product itself.

Component	Results	Species	Test	Exposure
N-aminoethylpiperazine	2,190 mg/l	Fish	LC50	96h
	58 mg/l	Daphnia magna (water flea)	EC50	48h
Polyoxypropylenediamine	>15 mg/l	Fish	LC50	96h
	80 mg/l	Daphnia magna (water flea)	EC50	48h

**Persistence and degradability**

No data is available on the product itself. N-aminoethylpiperazine and polyoxypropylenediamine are not readily biodegradable.

**Bioaccumulative Potential**

No data is available on the product itself.

Component	LogPow	BCF	Potential
N-aminoethylpiperazine	-1.48	-	Low
Polyoxypropylenediamine	1.34	-	Low

**Mobility in Soil**

**Soil/water partition coefficient (KOC)** Not available.

**Other adverse effects** No known significant effects or critical hazards.

**13. Disposal Considerations**

**Waste from residues/ unused products**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Contaminated packaging**

Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



## 14. Transport Information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

### International Transport Regulations

Regulatory information	UN/NA number	Proper Shipping Name	Classes/*PG	Additional Information
DOT	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 III	
TDG	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 III	
IMO/IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 III	Marine pollutant
IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Nonyl Phenol)	Class 9 III	Marine pollutant

\*PG: Packing group

Special precautions for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## 15. Regulatory Information

### UNITED STATES

#### U.S. Federal Regulations

United States – TSCA 12(b) – Chemical export notification: None Required.  
 United States – TSCA 5(a)2 – Final significant new use rules: Not Listed.  
 United States – TSCA 5(a)2 – Proposed significant new use rules: Not Listed.  
 United States – TSCA 5(e) – Substance consent order: Not listed.

#### Clean Air Act – Ozone Depleting Substances (ODS)

This product does not contain nor is it manufactured with ozone depleting substances.

#### Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

Product Name	Concentration %
Phenol	0 – 1%

#### Pennsylvania – RTK

Phenol

#### California Prop. 65

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under a statute.

#### EPA SARA 302 Extremely Hazardous Substances

No chemicals in this material are subject to reporting levels established by SARA Title III, Section 302.

#### EPA SARA 302/304/311/312 Hazardous Chemicals SARA 313

Acute Health Hazard, Chronic Health Hazard

#### Form R – Reporting requirements

Product Name	Concentration %
Phenol	0 – 1%

#### CERCLA Hazardous substances

Component	%	Section 304 CERCLA Hazardous Substance	CERCLA Reportable Quantity (Lbs)	Product Reportable Quantity (Lbs)
Phenol	1	Listed		
Propylene oxide			100	

**United States Inventory (TSCA 8b)**

All components are listed or exempted.

**CANADA**

**WHMIS (Canada)**

Class D-2B: Material causing other toxic effects (Toxic).  
Class E: Corrosive material.

**Canadian NPRI  
CEPA Toxic substances**

None known.  
None known.

**INTERNATIONAL REGULATIONS**

**International Lists**

**Australia Inventory (AICS):** All components are listed or exempted.  
**Canada Inventory:** All components are listed or exempted.  
**Korea Inventory:** All components are listed or exempted.  
**Japan Inventory:** All components are listed or exempted.  
**China Inventory (IECSC):** All components are listed or exempted.  
**New Zealand Inventory (NZIoC):** All components are listed or exempted.  
**Philippines Inventory (PICCS):** All components are listed or exempted.

**16. Other Information, Including Date of Preparation or Last Revision**

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**HMIS Rating**



**Date of Preparation** April 18, 2022  
**Date of Last Revision** April 18, 2022  
**Revision #** 4.0  
**Prepared by** EHS/Regulatory

The information contained herein is based on the data available to us and is believed to be correct. However, Kop-Coat Marine makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Kop-Coat Marine assumes no responsibility for injury from the use of the product described herein.