

SAFETY DATA SHEET

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Section 1: Identification

Supplier: **TRANSCEM COATINGS** **Date Prepared:** 02/12/2019
Street Address: 1680 Miller Ave. **Revision:** 5
Los Angeles CA. 90063

Product Name: MIL-PRF-23377K Type 1 Class N **Information:** 213-747-7725
(Component B)

Color: Amber **Chemtrec Emergency No.:** 800-424-9300
Product Code: EP23377B
Chemical Family: Polyamide
Chemical Formula: Mixture
Product Class: Epoxy Curing Agent

Legend: N.A. – Not Applicable, N.E. – Not Established, N.D. – Not Determined

Section 2: Hazards Identification**OSHA/HCS status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture: FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 2
ACUTE TOXICITY (inhalation) - Category 2
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 C

GHS label elements**Hazard Pictograms:****Signal word:** Danger

Hazard statements: Flammable liquid and vapor.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Section 2: Hazards Identification

Precautionary statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements: Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. NTP, IARC and OSHA have classified chromium (+6) compounds as carcinogenic. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified: Prolonged or repeated contact may dry skin and cause irritation.

Section 3: Composition / information on ingredients

Ingredient Name	Percentage (%)	CAS Number
Polyamide Resin	30 – 40	Proprietary
Benzyl Alcohol	10 – 20	100-51-6
Mixed Cycloaliphatic Amines	15 – 25	Proprietary
Triethylenetetramine	5 – 15	Proprietary
Tertiary Amine	1 – 4	Proprietary
Organic Acid	< 1	Proprietary
P-Chlorobenzotrifluoride	1 – 5	98-56-6
Methyl Amyl Ketone	5 – 15	110-43-0
n-Butyl Alcohol	5 – 15	71-36-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Section 4: First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin Contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: Harmful if inhaled. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure

Skin Contact: Causes skin irritation. Defatting to the skin.

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation: Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact: Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion: No specific data.

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

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4: First aid measures (Continued)

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5: Fire-fighting measures

Extinguishing Media

Suitable extinguishing media: Use dry chemical, carbon dioxide, foam or water.

Specific hazards arising from the chemical: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products: Decomposition products may include the following materials:

- carbon dioxide
- carbon monoxide
- nitrogen oxides
- halogenated compounds
- metal oxide/oxides

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. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: 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".

Environmental precautions: 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).

Methods and materials for containment and cleaning up

Section 6: Accidental release measures (Continued)

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - 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. Do not breathe vapor or mist. Do not ingest. 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. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions: Ingestion of product or cured coating may be harmful. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advise on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: 46°C (115°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Section 8: Exposure controls / personal protection

Control parameters**Occupational exposure limits**

Ingredient Name	Exposure limits
Polyamide Resin	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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Benzyl Alcohol	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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Mixed Cycloaliphatic Amines	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
-----	-----
Triethylenetetramine	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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Tertiary Amine	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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Organic Acid	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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P-Chlorobenzotrifluoride	NIOSH (RTECS) N.E. OSHA PEL: N.E. ACGIH TLV N.E.
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Methyl Amyl Ketone	NIOSH (RTECS) MJ5075000 OSHA PEL: 100 ppm ACGIH TLV 50 ppm
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N-Butyl Alcohol	NIOSH (RTECS) N.E. OSHA PEL: 50 ppm ACGIH TLV N.E.
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Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Section 8: Exposure controls / personal protection (Continued)

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: 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.

Individual protection measures

Hygiene measures: 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye / face protection: Chemical splash goggles.

Skin protection

Hand protection: 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.

Body protection: 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. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9: Physical and chemical properties

Physical Form	: Liquid
Color	: Amber
Odor	: Solvent
PH	: N.A.
Boiling Point	: N.D.
Flash Point	: 83.9 F (28.3 C)
Melting/Freezing Point	: N.D.
Water Content	: None

Section 9: Physical and chemical properties (Continued)

Solubility in Water	: Insoluble
Specific Gravity	: Approx 0.96
Bulk Density	: N.D.
% Volatile by Weight	: Approx. 20 to 25%
COMP. V.O.C.	: <=3.0 lbs/gal (363 g/L) (less exempts)
MIXED V.O.C.	: <=2.8 lbs/Gal (340 g/L) (less exempts)
Vapor Density	: Heavier than air
Evaporation Rate	: 1.3 x n-butyl acetate

Flammable Limits:

Upper Explosive Limit (UEL) (%): 11.2

Lower Explosive Limit (LEL) (%): 1.4

Auto-Ignition Temperature: Not established

Section 10: Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: When exposed to high temperatures may produce hazardous decomposition products.
Refer to protective measures listed in sections 7 and 8.

Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions:
oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11: Toxicological information

Toxicological information:

Inhalation: No data is available on the product itself.

Inhalation - Components

Benzyl alcohol	LC50 (4 h): > 4.178 mg/l	Species : Rat.
	OECD Test Guideline 403	

Dermal: No data is available on the product itself.

Dermal- Components

Benzyl alcohol	LD50 : 2,000 mg/kg	Species : Rabbit.
Mixed Cycloaliphatic amines	LD50 : > 1,000 mg/kg	Species : Rabbit.
Triethylenetetramine	LD50 : 550 mg/kg	Species : Rabbit.
Tertiary amine	LD50 : 1,242 mg/kg	Species : Rabbit.

Eye irritation/corrosion: Moderate eye irritation.

Skin irritation/corrosion: Moderate skin irritation.

Section 11: Toxicological information (Continued)

Sensitization: Dermal sensitization to this product or component has been seen in some humans. The results of a test on guinea pigs showed this substance to be a weak skin sensitizer. Sensitization has occurred in laboratory animals after repeated exposures.

Chronic Health Hazard

Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity. In vitro tests have shown mutagenic effects on bacterial cultures. A component has been shown to cause reproductive/teratogenic effects in laboratory animals. Mixed polycycloaliphatic amines was tested in rats for systemic effects in a subchronic (28-day) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300 mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney, and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 15 mg/kg/day. Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

Section 12: Ecological information

Ecological Information:

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to fish – Components

Benzyl alcohol	LC50 (96 h) : 10 mg/l	Species: Bluegill sunfish (Lepomis macrochirus).
Benzyl alcohol	LC50 (96 h) : 460 mg/l	Species: Fathead minnow (Pimephales promelas).

Toxicity to algae – Components

Benzyl alcohol	IC50 (72 h) : 700 mg/l	Species: Algae.
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Toxicity to other organisms : No data available.

Section 13: Disposal considerations

Disposal Information: Dispose of waste in accordance with federal, state, and local environmental regulations. Empty containers must be handled with care, to product residue. Do not incinerate closed containers.

Section 14: Transport information

DOT ID#: UN1263

DOT proper shipping name: Paint or Paint Related Material

DOT Label: Flammable Liquid

DOT Class: 3

IATA ID#: UN1263

IATA proper shipping name: Paint or Paint Related Material

IATA Label: Flammable Liquid

IATA Class: 3

IATA Packing Instructions: 355

Section 15: Regulatory information

CERCLA – SARA Hazard Category

This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is Considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD.

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

NONE

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Component

NONE

CAS Number

NONE

U.S. State Regulations: As follows -**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

Component

NONE

CAS Number

NONE

Pennsylvania Right-to-Know:

The following non-hazardous ingredients are present in the product at greater than 3%.

Component

NONE

CAS Number

NONE

California Proposition 65:

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

NONE

Section 16: Other information

HMIS RATINGS:

Health	Flammability	Reactivity	Personal Protection
2	3	0	G

NFPA RATINGS:

Health	Flammability	Instability	Personal Protection
2	3	0	G

Disclaimer: The information contained on this SDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.