PRODUCTS TECHNIQUES, INC. Safety Data Sheet

SECTION 1 - PRODUCT & COMPANY INFORMATION

Product Name: MIL-PRF-23377K TYPE 2, CLASS 2, CHROMATED EPOXY POLYAMIDE PRIMER GREEN - TWO

COMPONENT TOUCH-UP PEN

Product Code: M23377-2-C2-10CC-GREEN (PART A)

MANUFACTURER: PH: 909.877.3951 Product Filled By:

Products/Techniques, Inc. FX: 909.877.6078 Delaware Paint Company 3271 S. Riverside Ave. E-mail: pti@ptipaint.com 8455 Rausch Drive Plain City, Ohio 43064

740-368-9981

In an emergency, call:

CHEMTREC: 1.800.424.9300

OPERATING HOURS: 8:00 am - 4:30 pm PDT

SECTION 2 - HAZARDS IDENTIFICATION

HMIS:230X

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Dermal Toxicity	Acute Tox. 4	Dermal>1000+<=2000mg/kg
Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l,
		Dusts&mists>1+<=5mg/l
Skin corrosive	3	Reversible adverse effects in dermal tissue, Draize score: >=
		1.5 < 2.3
Eye corrosive	2B	Mild eye irritant: Subcategory 2B, Reversible in 7 days
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Carcinogen	1B	Presumed Human Carcinogen, Based on demonstrated animal

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carcinogenicity

GHS Hazards

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H305	May be harmful if swallowed and enters airways
H313	May be harmful in contact with skin
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351	Suspected of causing cancer

GHS Precautions

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking

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P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/light/.../equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge
P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection

P281 Use personal protective equipment as required

P285 In case of inadequate ventilation wear respiratory protection
P312 Call a POISON CENTER or doctor/physician if you feel unwell

P321 Specific treatment (see ... on this label)
P322 Specific measures (see ... on this label)

P361 Remove/Take off immediately all contaminated clothing

P363 Wash contaminated clothing before reuse P302+P352 IF ON SKIN: Wash with soap and water

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a

position comfortable for breathing

P308+P313 IF exposed or concerned: Get medical advice/attention
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P342+P311 Call a POISON CENTER or doctor/physician

P370+P378 In case of fire: Use ... for extinction

P405 Store locked up

P403+P235 Store in a well ventilated place. Keep cool

P501 Dispose of contents/container to ...

Signal Word: Danger







SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
PROPANE, 2,2-BIS[P(2,3-EPOXYPROPOXY)PHENYL]-, POLYMERS	25085-99-8	24.52%
STRONTIUM CHROMATE	7789-06-2	18.04%
BARIUM SULFATE	7727-43-7	11.90%
SYNTHETIC AMORPHOUS SILICA	112926-00-8	8.75%
HEPTAN-2-ONE	110-43-0	8.24%
METHYL ETHYL KETONE	78-93-3	5.14%
ALKYL(C12-14)GLYCIDYL ETHER	68609-97-2	5.02%
DIISOBUTYL KETONE	108-83-8	4.42%
IPA	67-63-0	3.98%
RESIN	2210-79-9	3.78%
XYLENE	1330-20-7	2.65%
CARBON BLACK PIGMENT	1333-86-4	1.66%
TITANIUM DIOXIDE	13463-67-7	0.54%
TRADE SECRET NON HAZARDOUS	PROPRIETARY SURFACTANT	0.45%

THICKENER-CLAY	1302-78-9	0.26%
WATER	7732-18-5	0.20%
SILICONE RESIN	28630-33-3	0.14%
TOLUENE	108-88-3	0.03%
1-METHOXY-2-PROPANOL ACETATE	108-65-6	0.03%
N-BUTYL ACETATE NORMAL	123-86-4	0.03%
ETHYLBENZENE	100-41-4	0.01%
SOLVENT NAPHTHA	64742-95-6	0.00%

(1) NON-HAZARDOUS MATERIAL

SECTION 4 - FIRST AID MEASURES

INHALATION: If breathing problems occur during use, **LEAVE AREA IMMEDIATELY** and get fresh air. If breathing problems remain, **SEEK IMMEDIATE MEDICAL ATTENTION**.

EYE CONTACT: Flush eyes with large amounts of clean water for at least 20 minutes. Seek immediate medical attention.

SKIN CONTACT: Wash affected area thoroughly with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and launder before re-use.

INGESTION: Do not induce vomiting. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 0 C (32 F)

LEL: 1.00 UEL: 19.00

All flashpoints: TCC LEL AND UEL expressed as percent (%)

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide (CO2), dry chemical, water spray/water fog extinguishing systems

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner, or properly disposed of.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways.

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SECTION 7 - HANDLING & STORAGE

HANDLING: Wear all appropriate Personal Protective Equipment (PPE). Wear appropriate respiratory protection and ensure adequate ventilation at all times as vapors can accumulate over time in enclosed spaces and poorly ventilated areas. Use product in a way that minimizes splashes and/or creation of dust. Wash with soap and water thoroughly after each use.

STORAGE: Keep away from heat, sparks and flame. Keep container closed when not in use. Store in a cool dry area at a temperature between 50 and 95 degrees F. Do not store outside in direct sunlight.

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
PROPANE, 2,2-BIS[P(2,3- EPOXYPROPOXY)PHENYL] -, POLYMERS 25085-99-8	Not Established	Not Established	Not Established
STRONTIUM CHROMATE 7789-06-2	5 ug/m3 8 hr TWA 1 mg/10m3 CEIL	0.0005 mg/m3 TWA (as Cr)	NIOSH: 0.001 mg/m3 10 hr TWA (as CR)
BARIUM SULFATE 7727-43-7	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA	NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)
SYNTHETIC AMORPHOUS SILICA 112926-00-8	Not Established	Not Established	Not Established
HEPTAN-2-ONE 110-43-0	100 ppm TWA; 465 mg/m3 TWA	50 ppm TWA	NIOSH: 100 ppm TWA; 465 mg/m3 TWA
METHYL ETHYL KETONE 78-93-3	200 ppm TWA; 590 mg/m3 TWA	300 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA; 590 mg/m3 TWA 300 ppm STEL; 885 mg/m3 STEL
ALKYL(C12-14)GLYCIDYL ETHER 68609-97-2	Not Established	Not Established	Not Established
DIISOBUTYL KETONE 108-83-8	50 ppm TWA; 290 mg/m3 TWA	25 ppm TWA	NIOSH: 25 ppm TWA; 150 mg/m3 TWA
IPA 67-63-0	400 ppm TWA; 980 mg/m3 TWA	400 ppm STEL 200 ppm TWA	NIOSH: 400 ppm TWA; 980 mg/m3 TWA 500 ppm STEL; 1225 mg/m3 STEL
RESIN 2210-79-9	Not Established	Not Established	Not Established
XYLENE 1330-20-7	100 ppm TWA; 435 mg/m3 TWA	150 ppm STEL 100 ppm TWA	Not Established
CARBON BLACK PIGMENT 1333-86-4	3.5 mg/m3 TWA	3.5 mg/m3 TWA	NIOSH: 3.5 mg/m3 TWA; 0.1 mg/m3 TWA (as PAH, carbon black in presence of polycyclic aromatic hydrocarbons)

TITANIUM DIOXIDE 13463-67-7	15 mg/m3 TWA (total dust)	10 mg/m3 TWA	Not Established
TRADE SECRET NON HAZARDOUS PROPRIETARY SURFACTANT	Not Established	Not Established	Not Established
THICKENER-CLAY 1302-78-9	Not Established	Not Established	Not Established
WATER 7732-18-5	No TLV established	No PEL established	Not Established
SILICONE RESIN 28630-33-3	Not Established	Not Established	Not Established
TOLUENE 108-88-3	200 ppm TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL
1-METHOXY-2-PROPANOL ACETATE 108-65-6	TWA 50 PPM	Not Established	Not Established
N-BUTYL ACETATE NORMAL 123-86-4	150 ppm TWA; 710 mg/m3 TWA	200 ppm STEL 150 ppm TWA	NIOSH: 150 ppm TWA; 710 mg/m3 TWA 200 ppm STEL; 950 mg/m3 STEL
ETHYLBENZENE 100-41-4	100 ppm TWA; 435 mg/m3 TWA	125 ppm STEL 100 ppm TWA	NIOSH: 100 ppm TWA; 435 mg/m3 TWA 125 ppm STEL; 545 mg/m3 STEL
SOLVENT NAPHTHA 64742-95-6	Not Established	Not Established	Not Established

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

VENTILATION & RESPIRATORY PROTECTION: Always follow all local, state, and federal laws and regulations regarding the use of respirators. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Wear a MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

ADMINISTRATIVE CONTROLS: All individual company safety policies should be reviewed to determine compliance with applicable Federal, State and local safety regulations. If a company determines that threshold limit values and air quality contaminant level have not been exceeded, then that company should set it's own policies regarding the use of respirators and other Personal Protective Equipment. SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves, such as neoprene or solvent resistant nitrile. To prevent repeated or prolonged skin contact, wear impervious clothing such as

a chemical suit, rubber boots, and/or chemical safety goggles plus a face shield if such should be necessary. If the equipment to be worn is not available or the type of equipment for a specific job is not known, consult a reputable safety equipment supply company. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid prolonged or repeated contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

This product exhibits the following properties under normal conditions:

Appearance Pigmented liquid

Physical State Liquid

Vapor Pressure 12.7 mmHg

Wt% Solids 75.74

VOC(g/I) Less H2O and 329.35 Exempt Compounds

VOC (g/L) Material 329.35

% VOC (C.A.R.B) 24.25

Odor Solvent like

Vapor Density 3.68

Boiling Range 80 to 163 °C, 175 to

325 °F

Weight/Gallon 11.34

VOC(lbs/gal) Less H2O and 2.74 Exempt Compounds

Specific Gravity 1.36

SECTION 10 - REACTIVITY & STABILITY

STABILITY:

STABLE

INCOMPATIBILITY (Materials to avoid): strong acids and bases, oxidizers, and selected amines.

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

No Data

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide (CO) and carbon dioxide (CO2). Other unknown hazardous products are possible.

No Data

Hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Mixture Toxicity

Oral Toxicity LD50: 4,797mg/kg Dermal Toxicity LD50: 209mg/kg Inhalation Toxicity LC50: 119mg/L

Component Toxicity

25085-99-8 PROPANE, 2,2-BIS[P(2,3-EPOXYPROPOXY)PHENYL]-, POLYMERS

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	Oral LD50: 5,000 mg/kg (Rat)
7789-06-2	STRONTIUM CHROMATE
	Oral LD50: 3,118 mg/kg (Rat)
110-43-0	HEPTAN-2-ONE
	Oral LD50: 1,670 mg/kg (Rat)
78-93-3	METHYL ETHYL KETONE
	Oral LD50: 2,737 mg/kg (Rat) Inhalation LC50: 32 g/m3 (Mouse)
108-83-8	DIISOBUTYL KETONE
	Dermal LD50: 16 g/kg (Rabbit) Inhalation LC50: 2,300 ppm (Rat:)
67-63-0	IPA
	Oral LD50: 4,396 mg/kg (Rat) Inhalation LC50: 73 mg/L (Rat)
13463-67-7	TITANIUM DIOXIDE
	Inhalation LC50: 7 mg/L (Rat)
1302-78-9	THICKENER-CLAY
	Oral LD50: 5,000 mg/kg (Rat:)
7732-18-5	WATER
	Oral LD50: 90 mL/kg (Rat:)
108-88-3	TOLUENE
	Oral LD50: 636 mg/kg (Rat)
108-65-6	1-METHOXY-2-PROPANOL ACETATE
	Dermal LD50: 5,000 mg/kg (Rabbit:) Inhalation LC50: 100 ppm (Rat)
123-86-4	N-BUTYL ACETATE NORMAL
	Inhalation LC50: 390 ppm (Rat)
100-41-4	ETHYLBENZENE
	Oral LD50: 3,500 mg/kg (Rat) Inhalation LC50: 17 mg/L (Rat)

INHALATION: Headaches, dizziness, nauseau, decreased blood pressure, change in heart rate, and cyanosis may result from overexposure to vapor. **Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal**.

INGESTION: This material may be harmful or fatal if swallowed.

SKIN CONTACT: May cause sensitization or allergic reaction.

EYE CONTACT: Direct contact with liquid, exposure to vapors or mist may cause stinging, tearing,

redness, swelling and eye damage.

Routes of Entry:

Inhalation Skin Contact Eye Contact Ingestion

Exposure to this material may affect the following organs:

Effects of Overexposure

CARCINOGENICITY:

CAS Number	<u>Description</u>	% Weight	Carcinogen Rating
1333-86-4	CARBON BLACK PIGMENT	1.66	CARBON BLACK PIGMENT:
			NIOSH: Potential occupational
			carcinogen
			IARC: Possible human carcinogen

OSHA: listed

7789-06-2 STRONTIUM CHROMATE 18.04 STRONTIUM CHROMATE:

ACGIH: A2 IARC: Group 1 NIOSH: Listed

EU REACH: Category 2 Carcinogenic Substance

ACUTE TOXICITY:

INHALATION: Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CONDITIONS AGGRAVATED: Unknown.

CHRONIC EFFECTS: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

SECTION 12 - ECOLOGICAL INFORMATION

No information available.

Component Ecotoxicity

HEPTAN-2-ONE 96 Hr LC50 Pimephales promelas: 131.0 mg/L [flow-through]

METHYL ETHYL KETONE 96 Hr LC50 Pimephales promelas: 3220 mg/L [flow-through]; 96 Hr LC50

Lepomis macrochirus: 1690 mg/L

48 Hr EC50 water flea: 520 mg/L; 48 Hr EC50 Daphnia magna: 5091 mg/L

DIISOBUTYL KETONE 96 Hr LC50 Oncorhynchus mykiss: 140 mg/L [semi-static]

96 Hr EC50 Selenastrum capricornutum: 100 mg/L

IPA 96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50

Pimephales promelas:11130 mg/L[static] 48 Hr EC50 Daphnia magna: 13299 mg/L

96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus

subspicatus: >1000 mg/L

XYLENE 96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50

Oncorhynchus mykiss: 8.05 mg/L [flow-through]; 96 Hr LC50 Lepomis

macrochirus: 16.1 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 26.7

mg/L [static

48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

CARBON BLACK PIGMENT 24 Hr EC50 Daphnia magna: >5600 mg/L

THICKENER-CLAY 96 Hr LC50 Salmo gairdneri: 8-19 g/L

TOLUENE 96 Hr LC50 Pimephales promelas: 25 mg/L [flow-through] (1 day old); 96 Hr LC50

Oncorhynchus mykiss: 24.0 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 24.0 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 13 mg/L

[static]

48 Hr EC50 water flea: 11.3 mg/L; 48 Hr EC50 water flea: 310 mg/L; 48 Hr EC50

Daphnia magna: 11.3 mg/L

96 Hr EC50 Selenastrum capricornutum: >433 mg/L

1-METHOXY-2-PROPANOL

96 Hr LC50 Pimephales promelas: 161 mg/L [static]

ACETATE 48 Hr EC50 Daphnia magna: >500 mg/L

N-BUTYL ACETATE NORMAL 96 Hr LC50 Leuciscus idus: 62 mg/L [static]

48 Hr EC50 water flea: 44 mg/L

96 Hr EC50 Scenedesmus subspicatus: 320 mg/L; 72 Hr EC50 Scenedesmus

subspicatus: 674.7 mg/L

96 Hr LC50 Oncorhynchus mykiss: 14.0 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.09 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 150.0 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 48.5

mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]

48 Hr EC50 Daphnia magna: 1.8-2.4 mg/L

72 Hr EC50 Selenastrum capricornutum: 4.6 mg/L; 96 Hr EC50 Selenastrum

capricornutum: >438 mg/L

SECTION 13 - DISPOSAL CONSIDERATIONS

It is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition. Maximize material recovery for reuse or recycling.

It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues.

Non-usable product is regulated by US EPA as hazardous material under the following codes:

SECTION 14 - TRANSPORTATION / SHIPPING INFORMATION

Hazardous Material! Ship according to all applicable local, state, and federal regulations regarding labeling and packaging requirements.

Agency	Proper Shipping Name	<u>UN Number</u>	Packing Group	Hazard Class
D.O.T.	PAINT	UN 1263	II	3
IATA	PAINT	UN 1263	II	3
IMO	PAINT	UN 1263		3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

The following chemicals are listed under California Proposition 65:

7789-06-2 STRONTIUM CHROMATE 18.04 % Carcinogen

1333-86-4 CARBON BLACK PIGMENT 1.66 % Carcinogen

The following chemicals appear on the New Jersey Right-To-Know Chemicals list:

7789-06-2 STRONTIUM CHROMATE

110-43-0 HEPTAN-2-ONE

78-93-3 METHYL ETHYL KETONE

108-83-8 DIISOBUTYL KETONE

1330-20-7 XYLENE

1333-86-4 CARBON BLACK PIGMENT

The following chemicals appear on the Pennsylvania Right-To-Know list:

7789-06-2 STRONTIUM CHROMATE 18.04 %

110-43-0 HEPTAN-2-ONE 8.24 %

78-93-3 METHYL ETHYL KETONE 5.14 % 108-83-8 DIISOBUTYL KETONE 4.42 %

1333-86-4 CARBON BLACK PIGMENT 1.66 %

SARA HAZARD CATEGORY: The 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 meed the following categories:

25085-99-8 PROPANE, 2,2-BIS[P(2,3-EPOXYPROPOXY)PHENYL]-, POLYMERS Acute Health Hazard

7789-06-2 STRONTIUM CHROMATE Acute Health Hazard, Chronic Health Hazard

110-43-0 HEPTAN-2-ONE Fire Hazard

78-93-3 METHYL ETHYL KETONE Fire Hazard, Acute Health Hazard, Chronic Health Hazard

108-83-8 DIISOBUTYL KETONE Fire Hazard, Acute Health Hazard

67-63-0 IPA Fire Hazard, Acute Health Hazard

2210-79-9 RESIN Acute Health Hazard, Chronic Health Hazard

1330-20-7 XYLENE Fire Hazard, Acute Health Hazard, Chronic Health Hazard

1333-86-4 CARBON BLACK PIGMENT Acute Health Hazard, Chronic Health Hazard

TOXIC SUBSTANCES CONTROL ACT: TSCA 2018 RESET COMPLIANT:

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

STRONTIUM CHROMATE 18.04 %

Country Regulation All Components Listed













EU Risk Phrases

R45: May cause cancer

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

R23/25: Toxic by inhalation and if swallowed

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation

Safety Phrase

S3/9/49: Keep only in the original container in a cool, well-ventilated place

S20/21: When using do not eat, drink or smoke

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

All ingredients are TSCA 2018 Reset Compliant. The chemical substances listed below are not on the TSCA Section 8 Inventory:

- None

SARA Section 313: The product contains the following substances subject to the reporting requirements of section 313 and Title II of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

SECTION 16 - OTHER INFORMATION

The information in this document is believed to be correct as of the date printed.

NO WARRANTY OF MERCHANTIBILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT OF THE HAZARDS RELATED TO ITS USE.

This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

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Hazardous Material Information System (HMIS)

HEALTH 2 FLAMMABILITY 3 PHYSICAL HAZARD 0 PERSONAL PROTECTION X 2

HMIS & NFPA Hazard Rating Legend

* = Chronic Health Hazard

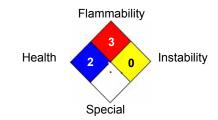
0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

National Fire Protection Association (NFPA)



Reviewer Revision

Date Prepared: 4/28/2019

PRODUCTS TECHNIQUES, INC. **Safety Data Sheet**

SECTION 1 - PRODUCT & COMPANY INFORMATION

Product Name: MIL-PRF-23377K TYPE 2, CLASS 2, CHROMATED EPOXY POLYAMIDE PRIMER GREEN - TWO COMPONENT TOUCH-UP PEN Product Code: M23377-2-C2-10CC-GREEN (PART B)

Products/Techniques, Inc. PH: 909.877.3951 Product Filled By:

Delaware Paint Company 3271 S. Riverside Ave. FX: 909.877.6078 8455 Rausch Drive Bloomington, CA 92316 E-mail: pti@ptipaint.com Plain City, Ohio 43064 Web: www.ptipaint.com

740-368-9981 CHEMTREC: 1.800.424.9300

SECTION 2 - HAZARDS IDENTIFICATION

HMIS:230X

GHS Ratings:

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Oral Toxicity	Acute Tox. 4	Oral>300+<=2000mg/kg
Dermal Toxicity	Acute Tox. 4	Dermal>1000+<=2000mg/kg
Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l,
		Dusts&mists>1+<=5mg/l
Skin corrosive	3	Reversible adverse effects in dermal tissue, Draize score: >
		4.5 + 0.0

Mild eye irritant: Subcategory 2B, Reversible in 7 days

Eye corrosive 2B Respiratory sensitizer Respiratory sensitizer 1 Skin sensitizer Skin sensitizer

GHS Hazards

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H305	May be harmful if swallowed and enters airways
H313	May be harmful in contact with skin
H317	May cause an allergic skin reaction
H320	Causes eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

GHS Precautions

P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/light//equipment
P242	Use only non-sparking tools

P243 Take precautionary measures against static discharge
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P264 Wash ... thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/protective clothing/eye protection/face protection

P285 In case of inadequate ventilation wear respiratory protection

P321 Specific treatment (see ... on this label)

P330 Rinse mouth

P363 Wash contaminated clothing before reuse

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P302+P352 IF ON SKIN: Wash with soap and water

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a

position comfortable for breathing

P332+P313 If skin irritation occurs: Get medical advice/attention

P333+P313 If skin irritation or a rash occurs: Get medical advice/attention

P342+P311 Call a POISON CENTER or doctor/physician

P370+P378 In case of fire: Use ... for extinction
P403+P235 Store in a well ventilated place. Keep cool
P501 Dispose of contents/container to ...

Signal Word: Danger







SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %	
NON-HAZARDOUS INGREDIENTS	NHI	25.26%	
ALCOHOL	100-51-6	25.26%	
BUTANOL	71-36-3	17.55%	
IPD	2855-13-2	12.63%	
METHYL ETHYL KETONE	78-93-3	10.80%	
SYNTHETIC AMORPHOUS SILICA	112926-00-8	5.60%	
SILANE	1760-24-3	1.30%	
DETA	111-40-0	0.32%	
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN COPOLYMER	25068-38-6	0.32%	
WATER	7732-18-5	0.30%	

(1) NON-HAZARDOUS MATERIAL

SECTION 4 - FIRST AID MEASURES

INHALATION: If breathing problems occur during use, **LEAVE AREA IMMEDIATELY** and get fresh air. If breathing problems remain, **SEEK IMMEDIATE MEDICAL ATTENTION**.

EYE CONTACT: Flush eyes with large amounts of clean water for at least 20 minutes. Seek immediate medical attention.

SKIN CONTACT: Wash affected area thoroughly with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and launder before re-use. INGESTION: Do not induce vomiting. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 0 C (32 F)

LEL: 1.00 UEL: 12.00

All flashpoints: TCC LEL AND UEL expressed as percent (%)

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide (CO2), dry chemical, water spray/water fog

extinguishing systems

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner, or properly disposed of.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7 - HANDLING & STORAGE

HANDLING: Wear all appropriate Personal Protective Equipment (PPE). Wear appropriate respiratory protection and ensure adequate ventilation at all times as vapors can accumulate over time in enclosed spaces and poorly ventilated areas. Use product in a way that minimizes splashes and/or creation of dust. Wash with soap and water thoroughly after each use.

STORAGE: Keep away from heat, sparks and flame. Keep container closed when not in use. Store in a cool dry area at a temperature between 50 and 95 degrees F. Do not store outside in direct sunlight.

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits	
NON-HAZARDOUS INGREDIENTS NHI	Not Established	Not Established	Not Established	
ALCOHOL 100-51-6	Not Established	Not Established	WEEL: 10 ppm 8 hr TWA	

BUTANOL 71-36-3	100 ppm TWA; 300 mg/m3 TWA	20 ppm TWA	NIOSH: 50 ppm Ceiling; 150 mg/m3 Ceiling	
IPD 2855-13-2	Not Established	Not Established	Not Established	
METHYL ETHYL KETONE 78-93-3	200 ppm TWA; 590 mg/m3 TWA	300 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA; 590 mg/m3 TWA 300 ppm STEL; 885 mg/m3 STEL	
SYNTHETIC AMORPHOUS SILICA 112926-00-8	Not Established	Not Established	Not Established	
SILANE 1760-24-3	Not Established	Not Established	Not Established	
DETA 111-40-0	Not Established	1 ppm TWA	NIOSH: 1 ppm TWA; 4 mg/m3 TWA	
4,4'- ISOPROPYLIDENEDIPHEN OL-EPICHLOROHYDRIN COPOLYMER 25068-38-6	Not Established	Not Established	Not Established	
WATER 7732-18-5	No TLV established	No PEL established	Not Established	

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

VENTILATION & RESPIRATORY PROTECTION: Always follow all local, state, and federal laws and regulations regarding the use of respirators. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Wear a MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

ADMINISTRATIVE CONTROLS: All individual company safety policies should be reviewed to determine compliance with applicable Federal, State and local safety regulations. If a company determines that threshold limit values and air quality contaminant level have not been exceeded, then that company should set it's own policies regarding the use of respirators and other Personal Protective Equipment. SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves, such as neoprene or solvent resistant nitrile. To prevent repeated or prolonged skin contact, wear impervious clothing such as a chemical suit, rubber boots, and/or chemical safety goggles plus a face shield if such should be necessary. If the equipment to be worn is not available or the type of equipment for a specific job is not known, consult a reputable safety equipment supply company. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid prolonged or repeated contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

This product exhibits the following properties under normal conditions:

Appearance Clear liquid Odor Solvent like

Physical State Liquid Vapor Density 13.25

Vapor Pressure 15.8 mmHg

Boiling Range 80 to 259 °C, 175 to

498 °F

Wt% Solids 71.65 Weight/Gallon 8.22

VOC(g/I) Less H2O and 279.40

Exempt Compounds

VOC(lbs/gal) Less H2O and 2.33

Exempt Compounds

VOC (g/L) Material 279.40 Specific Gravity 0.99

SECTION 10 - REACTIVITY & STABILITY

STABILITY:

STABLE

INCOMPATIBILITY (Materials to avoid): strong acids and bases, oxidizers, and selected amines.

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

% VOC (C.A.R.B) 28.35

No Data

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide (CO) and carbon dioxide (CO2). Other unknown hazardous products are possible.

No Data

Hazardous polymerization will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Mixture Toxicity

Oral Toxicity LD50: 438mg/kg Dermal Toxicity LD50: 3,879mg/kg Inhalation Toxicity LC50: 24mg/L

Component Toxicity

100-51-6 ALCOHOL

Oral LD50: 1,230 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rabbit) Inhalation LC50: 9 mg/L (Rat)

71-36-3 BUTANOL

Oral LD50: 790 mg/kg (Rat) Dermal LD50: 3,400 mg/kg (Rabbit)

2855-13-2 IPE

Oral LD50: 2,369 mg/kg (Rat) Dermal LD50: 2,000 mg/kg (Rat)

78-93-3 METHYL ETHYL KETONE

Oral LD50: 2,737 mg/kg (Rat) Inhalation LC50: 32 g/m3 (Mouse)

111-40-0 DETA

Oral LD50: 819 mg/kg (Rat) Dermal LD50: 672 mg/kg (Rabbit)

25068-38-6 4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN COPOLYMER

Dermal LD50: 1,200 mg/kg (Rat)

7732-18-5 WATER

Oral LD50: 90 mL/kg (Rat:)

INHALATION: Headaches, dizziness, nauseau, decreased blood pressure, change in heart rate, and cyanosis may result from overexposure to vapor. **Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal**.

INGESTION: This material may be harmful or fatal if swallowed. SKIN CONTACT: May cause sensitization or allergic reaction.

EYE CONTACT: Direct contact with liquid, exposure to vapors or mist may cause stinging, tearing,

redness, swelling and eye damage.

Routes of Entry:

Inhalation Skin Contact Eye Contact Ingestion

Exposure to this material may affect the following organs:

Effects of Overexposure

CARCINOGENICITY:

<u>CAS Number</u> <u>Description</u> <u>% Weight</u> <u>Carcinogen Rating</u>

None No Data

ACUTE TOXICITY:

INHALATION: Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

CONDITIONS AGGRAVATED: Unknown.

CHRONIC EFFECTS: Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

SECTION 12 - ECOLOGICAL INFORMATION

No information available.

Component Ecotoxicity

ALCOHOL 96 Hr LC50 Pimephales promelas: 460 mg/L [static]; 96 Hr LC50 Lepomis

macrochirus: 10 mg/L [static] 48 Hr EC50 water flea: 23 mg/L 3 Hr EC50 Anabaena variabilis: 35 mg/L

BUTANOL 96 Hr LC50 Pimephales promelas: 1730-1910 mg/L [static]; 96 Hr LC50

Pimephales promelas:1740 mg/L[flow-through]

48 Hr EC50 Daphnia magna: 1983 mg/L

96 Hr EC50 Scenedesmus subspicatus: >500 mg/L; 72 Hr EC50 Scenedesmus

subspicatus: >500 mg/L

METHYL ETHYL KETONE 96 Hr LC50 Pimephales promelas: 3220 mg/L [flow-through]; 96 Hr LC50

Lepomis macrochirus: 1690 mg/L

 $48\ Hr\ EC50\ water$ flea: 520 mg/L; $48\ Hr\ EC50\ Daphnia\ magna:$ 5091 mg/L

DETA 96 Hr LC50 Leuciscus idus: 430 mg/L [semi-static]; 96 Hr LC50 Poecilia

reticulata:248 mg/L[static]

24 Hr EC50 water flea: 330 mg/L; 48 Hr EC50 Daphnia magna: 16 mg/L 72 Hr EC50 Selenastrum capricornutum: 1164 mg/L; 96 Hr EC50 Selenastrum capricornutum: 345.6 mg/L; 96 Hr EC50 Scenedesmus subspicatus: 592 mg/L

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SECTION 13 - DISPOSAL CONSIDERATIONS

It is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition. Maximize material recovery for reuse or recycling.

It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues.

Non-usable product is regulated by US EPA as hazardous material under the following codes:

SECTION 14 - TRANSPORTATION / SHIPPING INFORMATION

Hazardous Material! Ship according to all applicable local, state, and federal regulations regarding labeling and packaging requirements.

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
D.O.T.	PAINT	UN 1263	II	3
IATA	PAINT	UN 1263	II	3
IMO	PAINT	UN 1263	II	3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

The following chemicals are listed under California Proposition 65:

- None

The following chemicals appear on the New Jersey Right-To-Know Chemicals list:

78-93-3 METHYL ETHYL KETONE

The following chemicals appear on the Pennsylvania Right-To-Know list:

78-93-3 METHYL ETHYL KETONE 10.80 %

SARA HAZARD CATEGORY: The 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 meed the following categories:

100-51-6 ALCOHOL Fire Hazard, Acute Health Hazard, Chronic Health Hazard

71-36-3 BUTANOL Fire Hazard, Acute Health Hazard

2855-13-2 IPD Acute Health Hazard

78-93-3 METHYL ETHYL KETONE Fire Hazard, Acute Health Hazard, Chronic Health Hazard

1760-24-3 SILANE Acute Health Hazard, Chronic Health Hazard

TOXIC SUBSTANCES CONTROL ACT: TSCA 2018 RESET COMPLIANT:

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

- None

Country Regulation All Components Listed



EU Risk Phrases

Safety Phrase

All ingredients are TSCA 2018 Reset Compliant. The chemical substances listed below are not on the TSCA Section 8 Inventory:

- None

SARA Section 313: The product contains the following substances subject to the reporting requirements of section 313 and Title II of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

SECTION 16 - OTHER INFORMATION

The information in this document is believed to be correct as of the date printed.

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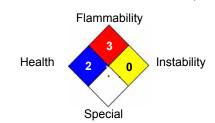
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Hazardous Material Information System (HMIS)

HEALTH 2 HMIS & NFPA Hazard Rating Legend * = Chronic Health Hazard 0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH

National Fire Protection Association (NFPA)



Reviewer Revision

Date Prepared: 4/28/2019