

# PRODUCTS TECHNIQUES, INC.

## Safety Data Sheet

### SECTION 1 - PRODUCT & COMPANY INFORMATION

Product Name: MIL-PRF-23377K TY.I CL.C2 & CN CATALYST Product Code: PT-500KIC2/CAT

Trade Name: NSN: 8010-01-387-1069/8010-01-387-1033 CAGE CODE: 06341

MANUFACTURER:  
Products/Techniques, Inc.  
3271 S. Riverside Ave.  
Bloomington, CA 92316

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

In an emergency, call:  
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: >= 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

#### 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:

UEL: 11.00

All flashpoints: TCC

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide (CO<sub>2</sub>), 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-EPOCHLOROHYDRIN 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:

<b>Appearance</b> Pigmented liquid	<b>Odor</b> Solvent like
<b>Physical State</b> Liquid	<b>Vapor Density</b> 13.25
<b>Vapor Pressure</b> 15.8 mmHg	<b>Boiling Range</b> 80 to 259 °C, 175 to 498 °F
<b>Wt% Solids</b> 71.65	<b>Weight/Gallon</b> 8.22
<b>VOC(g/l) Less H2O and Exempt Compounds</b> 279.40	<b>VOC(lbs/gal) Less H2O and Exempt Compounds</b> 2.33
<b>VOC (g/L) Material</b> 279.40	<b>Specific Gravity</b> 0.99
<b>% VOC (C.A.R.B)</b> 28.35	

## 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 (CO<sub>2</sub>). 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

IPD

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, nausea, 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

### 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.

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
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 meet 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:

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

- R10: Flammable
- R22: Harmful if swallowed
- R25: Toxic if swallowed
- R38: Irritating to skin
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed

Safety Phrase

- S15: Keep away from heat
- S16: Keep away from sources of ignition - No smoking
- S3/7/9: Keep container tightly closed 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

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 MERCHANTABILITY, 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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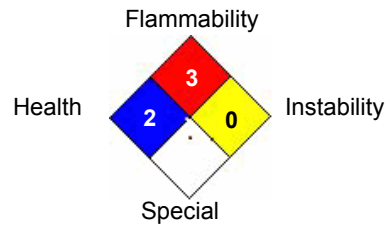
**Hazardous Material Information System (HMIS)**

**National Fire Protection Association (NFPA)**



HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

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



Reviewer Revision

Date Prepared: 4/21/2018