

PRODUCTS TECHNIQUES, INC.

Safety Data Sheet

SECTION 1 - PRODUCT & COMPANY INFORMATION

Product Name: MIL-V-173C FUNGUS RES.VARNISH Product Code: PT-107

Trade Name: NSN: 8010-01-387-1033 / 8010-00-180-6345

Products/Techniques, Inc.
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OPERATING HOURS: 8:00 am - 4:30 pm PDT

Product Use:

Not recommended for:

SECTION 2 - HAZARDS IDENTIFICATION

HMIS:230X

GHS Ratings:

Flammable liquid	1	Flash point < 23°C and initial boiling point <= 35°C (95°F)
Oral Toxicity		
Inhalation Toxicity	Acute Tox. 2	Gases>100+<=500ppm, Vapors>0.5+<=2mg/l, Dusts&mists>0.05+<=0.5mg/l
Eye corrosive	2	Eye Irritation: Reversible adverse effects on cornea, iris, conjunctiva, Draize score: Corneal opacity >= 1, Iritis > 1, Redness >= 2, Chemosis >= 2
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Carcinogen	1A	Known Human Carcinogen Based on human evidence

GHS Hazards

H224	Extremely flammable liquid and vapour
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H317	May cause an allergic skin reaction
H333	May be harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350	May cause 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
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

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash ... thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
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
P284	Wear respiratory protection
P285	In case of inadequate ventilation wear respiratory protection
P310	Immediately call a POISON CENTER or doctor/physician
P320	Specific treatment is urgent (see ... on this label)
P321	Specific treatment (see ... on this label)
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+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously 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
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention
P337+P313	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+P233	Store in a well ventilated place. Keep container tightly closed
P403+P235	Store in a well ventilated place. Keep cool
P501	Dispose of contents/container to ...

Danger



There are no GHS ratings that apply to this product at this time.

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 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
TUNG OIL 8001-20-5 33.72 percent			
N-BUTYL ACETATE NORMAL 123-86-4 27.55 percent	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
{P TERT}BUTYLPHENOL 98-54-4 27.10 percent	Not Established	Not Established	
METHYL ETHYL KETONE 78-93-3 4.63 percent	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
ETHANOL 64-17-5 2.87 percent	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm TWA	NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA
SALICYLANILIDE ADDITIVE 87-17-2 1.08 percent			
ADDITIVE 96-29-7 0.767 percent			
MINERAL SPIRITS 8052-41-3 0.572 percent	500 ppm TWA; 2900 mg/m3 TWA	100 ppm TWA	NIOSH: 350 mg/m3 TWA 1800 mg/m3 Ceiling (15 min)
1-METHOXY-2-PROPANOL ACETATE 108-65-6 0.369 percent	TWA 50 PPM		
ZIRCONIUM ADDITIVE 22464-99-9 0.307 percent			
IPA 67-63-0 0.298 percent	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

METHANOL 67-56-1 0.142 percent	200 ppm TWA; 260 mg/m3 TWA	250 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA; 260 mg/m3 TWA 250 ppm STEL; 325 mg/m3 STEL
COBALT ADDITIVE 61789-51-3 0.137 percent			
FORMALDEHYDE 50-00-0 0.001 percent	0.75 ppm TWA	0.3 ppm Ceiling	NIOSH: 0.016 ppm TWA 0.1 ppm Ceiling (15 min)

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

LEL: 0.0 %

UEL: 11.4 %

All flashpoints: TCC

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
TUNG OIL 8001-20-5			
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
{P TERT}BUTYLPHENOL 98-54-4	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
ETHANOL 64-17-5	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm TWA	NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA
SALICYLANILIDE ADDITIVE 87-17-2			
ADDITIVE 96-29-7			
MINERAL SPIRITS 8052-41-3	500 ppm TWA; 2900 mg/m3 TWA	100 ppm TWA	NIOSH: 350 mg/m3 TWA 1800 mg/m3 Ceiling (15 min)
1-METHOXY-2-PROPANOL ACETATE 108-65-6	TWA 50 PPM		
ZIRCONIUM ADDITIVE 22464-99-9			
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
METHANOL 67-56-1	200 ppm TWA; 260 mg/m3 TWA	250 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA; 260 mg/m3 TWA 250 ppm STEL; 325 mg/m3 STEL
COBALT ADDITIVE 61789-51-3			
FORMALDEHYDE 50-00-0	0.75 ppm TWA	0.3 ppm Ceiling	NIOSH: 0.016 ppm TWA 0.1 ppm Ceiling (15 min)

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:

<p style="text-align: center;">Appearance Clear liquid</p> <p style="text-align: center;">Physical State Liquid</p> <p style="text-align: center;">Vapor Pressure 12.9 mmHg</p> <p style="text-align: center;">Wt% Solids 62.39</p> <p style="text-align: center;">VOC(g/l) Less H2O and Exempt Compounds 339.52</p> <p style="text-align: center;">VOC (g/L) Material 339.52</p> <p style="text-align: center;">% VOC (C.A.R.B) 37.61</p>	<p style="text-align: center;">Odor Solvent like</p> <p style="text-align: center;">Vapor Density 3.52</p> <p style="text-align: center;">Boiling Range 0 to 237 °C, 32 to 459 °F</p> <p style="text-align: center;">Weight/Gallon 7.54</p> <p style="text-align: center;">VOC(lbs/gal) Less H2O and Exempt Compounds 2.83</p> <p style="text-align: center;">Specific Gravity 0.90</p>
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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

Inhalation Toxicity: 1mg/L

Component Toxicity

123-86-4	N-BUTYL ACETATE NORMAL Inhalation: 390 ppm (Rat)
98-54-4	{P TERT}BUTYLPHENOL Oral: 2,990 mg/kg (Rat) Dermal: 2,318 mg/kg (Rabbit)
78-93-3	METHYL ETHYL KETONE Oral: 2,737 mg/kg (Rat) Inhalation: 32 g/m3 (Mouse)
64-17-5	ETHANOL Dermal: 20 g/kg (Rat)
96-29-7	ADDITIVE Oral: 930 mg/kg (Rat) Inhalation: 20 mg/L (Rat)
108-65-6	1-METHOXY-2-PROPANOL ACETATE Dermal: 5,000 mg/kg (Rabbit:) Inhalation: 100 ppm (Rat)
67-63-0	IPA Oral: 4,396 mg/kg (Rat) Inhalation: 73 mg/L (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
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Exposure to this material may affect the following organs:

Blood	Eyes	Kidneys	Liver	Central Nervous System	Reproductive System
Skin	GI Tract	Respiratory System			

Effects of Overexposure

CARCINOGENICITY:

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
50-00-0	FORMALDEHYDE	0.001	FORMALDEHYDE: NIOSH: potential occupational carcinogen IARC: Human carcinogen OSHA: listed
61789-51-3	COBALT ADDITIVE	0.137	COBALT ADDITIVE: IARC: Possible human carcinogen OSHA: listed

SECTION 12 - ECOLOGICAL INFORMATION

No information available.

Component Ecotoxicity

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>
DOT	PAINT	UN1263	II	3
IATA	PAINT	UN1263	II	3
IMO	PAINT	UN1263	II	3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

The following chemicals are listed under California Proposition 65:

61789-51-3 COBALT ADDITIVE 0.14 % Mutagen
64-17-5 ETHANOL 2.87 % Carcinogen

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

78-93-3 METHYL ETHYL KETONE
123-86-4 N-BUTYL ACETATE NORMAL

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

78-93-3 METHYL ETHYL KETONE 4.63 %
123-86-4 N-BUTYL ACETATE NORMAL 27.55 %

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:

61789-51-3 COBALT ADDITIVE Fire Hazard, Acute Health Hazard, Chronic Health Hazard
67-56-1 METHANOL Fire Hazard, Acute Health Hazard
64-17-5 ETHANOL Fire Hazard, Chronic Health Hazard

78-93-3 METHYL ETHYL KETONE Fire Hazard, Acute Health Hazard, Chronic Health Hazard
123-86-4 N-BUTYL ACETATE NORMAL Fire Hazard, Acute 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



EU Risk Phrases

Safety Phrase

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:

61789-51-3 COBALT ADDITIVE 0.14%

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.

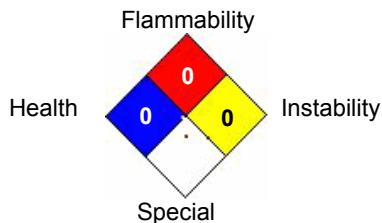
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Hazardous Material Information System (HMIS)

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

National Fire Protection Association (NFPA)



Date Prepared: 3/18/2016

Reviewer Revision