

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU)
No. 2015/830 – United Kingdom (UK) and Australian Requirements

SAFETY DATA SHEET

Metl-Sol

1 – IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

PRODUCT NAME:	Metl-Sol
PRODUCT NUMBER:	C-2200 Metal Surface Cleaner
RECOMMENDED USE:	Aircraft Coatings and thinners
RESTRICTIONS ON USE:	Not applicable
SUPPLIER:	Poly-Fiber, Inc. P.O. Box 3129, Riverside, CA 92519, USA 4343 Fort Drive, Riverside, CA 92509, USA (951) 684-4280 (951) 809-7144 (760) 782-1947
EMERGENCY TELEPHONE:	(800) 424-9300 (Chemtrec- US) (703) 527-3887 (International – Call Collect)

2 - HAZARDS IDENTIFICATION

GHS Hazard Category

Flammable liquid- Category 2
Eye Irritation - Category 2A
Skin Irritation- Category 2
Respiratory Irritation- Category 3
Specific target organ toxicity (single exposure) – Category 3, Central Nervous System H336

Label Elements

Pictograms



Signal Word

DANGER

Hazard Statements

⚠ WARNING: This product can expose you to chemicals including Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Highly flammable. Irritating to eyes and skin
May cause drowsiness or dizziness
Harmful: danger of serious damage to health by prolonged exposure through inhalation
Possible risk of harm to the unborn child
Harmful: may cause lung damage if swallowed

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Store in a well-ventilated place. Keep container tightly closed. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area. Vapors may cause drowsiness and dizziness.

Response

INHALATION:

Move the victim to a fresh air place immediately. Get medical attention if discomforts persist.

INGESTION:

Rinse mouth with clean water immediately. DO NOT induce vomiting. Get medical attention immediately. If vomiting occurs, keep the victim's head low so that vomits from the stomach will not enter the lungs.

SKIN CONTACT:

Remove contaminated clothing and flush the affected skin areas with clean water for at least 15 minutes. Get medical attention if discomforts persist.

EYES CONTACT:

Make sure all contact lenses are removed before flushing the eyes with eye lids open with clean water for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Storage

Store in a well-ventilated Place. Keep container tightly closed. Keep cool. Store in a locked cabinet, cage or room.

Disposal

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

CLASSIFICATION (1999/45) XI, XN, F, R11, R20, R50/53, R66, R67

3 – COMPOSITION /INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content %	Classification (67/548/EEC)
Toluene	203-625-9	108-88-3	30-40%	XN, F, R11, R20, S16, S25, S29, S33
Cyclohexanone	203-63-1	108-94-1	30-40%	XN, R10, R20, S25
Methyl Ethyl Ketone	201-159-0	78-93-3	10-20%	XI, F, R11, R36/37, S9, S16, S25, S33
Isopropyl Alcohol	200-661-7	67-63-0	10-20%	XI, F, R11, R36, R67, S16, S24/25, S26, S7

The Full Text for all R-Phrases and S-Phrases is displayed in Section 15

COMPOSITION COMMENTS

The data shown are in accordance with the latest EC Directives.

4- FIRST AID MEASURES

NOTICE:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Breathing the vapor may irritate the nose and throat. Central nervous system effects including excitation, euphoria, contracted eye pupil, dizziness, blurred vision, fatigue, nausea, headache, loss of consciousness, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:

Contact with the skin or eyes may cause irritation. Flush skin and eyes with water for at least 15 minutes. Prolonged or repeated contact can cause moderate irritation, defatting, and/or dermatitis.

INGESTION HEALTH RISK AND SYMPTOMS OF EXPOSURE:

This product may aggravate preexisting eye, skin, heart, central nervous system and respiratory disorders.

HEALTH HAZARDS (ACUTE AND CHRONIC): Overexposure may cause anesthesia, headache, nausea or dizziness. Breathing the vapors may irritate the nose and throat. Detectable amounts of chemicals or substances known to the state of California to cause cancer, birth defects, or other reproductive harm may be found in this product. Use care when handling chemical and petroleum products.

CARCINOGENICITY: NTP CARCINOGEN: N/A IARC MONOGRAPHS : N/A OSHA REGULATED : N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE TO THIS PRODUCT:

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

EMERGENCY AND FIRST AID PROCEDURES:

Remove victim to fresh air and restore breathing if required. Call a physician. If breathing stops give artificial respiration. Keep person warm. Never give anything by mouth to an unconscious person. Do not induce vomiting. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs.

5- FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA:

CO₂, Dry chemical, Foam, Water fog.

SPECIAL FIREFIGHTING PROCEDURES:

Do not use a direct stream of water. Product may float and can be reignited on the surface of the water. Do not enter a confined area without full bunker gear including a positive pressure NIOSH approved self-contained breathing apparatus. Decomposition products may form toxic materials.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Never use welding or cutting torch on or near drum (even empty) because residue or product can ignite explosively. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, flames and other ignition sources at locations distant from the material handling point. Flammable material.

6-ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Wear protective clothing as described in Section 8.

ENVIRONMENTAL PRECAUTIONS:

Spillages or uncontrolled discharges into watercourses must immediately be alerted to Environmental Agency or other appropriate regulatory authority.

SPILL CLEANUP METHODS:

Keep combustibles away from spilled material. Extinguish all ignition sources. Avoid sparks, open flames, and smoking. Ventilate. Absorb in vermiculite, dry sand, or earth and place into containers for disposal.

7-HANDLING AND STORAGE

USAGE PRECAUTIONS:

Keep away from heat, sparks and open flames. Avoid spilling, skin and eyes contact. Use with adequate ventilation and avoid excessive exposure to solvent vapors. Use approved respirator if air contamination exceeds the accepted level.

STORAGE PRECAUTIONS:

FLAMMABLE/Combustible. Keep away from oxidizers, open flames and other ignition sources. Keep unused contents in original container and tightly closed lids. Store in a cool, dry and well-ventilated place and at an ambient Temperature not to exceeding above 120° F.

STORAGE CLASS:

FLAMMABLE liquid storage.

8-EXPOSURE CONTROL/PERSONAL PROTECTION

Name	Workplace Exposure Limits	Remarks
Toluene	ACGIH: 50ppm TWA NIOSH: 100ppm TWA, 375 mg/m ³ TWA, 500 ppm IDLH OSHA-Final PELs: 200 ppm TWA	Consult local authorities for acceptable exposure limits
Cyclohexanone	ACGIH: 20 ppm TWA; 50 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route NIOSH: 25 ppm TWA; 100 mg/m ³ TWA 700 ppm IDLH OSHA-Final PELs: 50 ppm TWA; 200 mg/m ³ TWA	Same As Above
Methyl Ethyl Ketone	ACGIH: 200 ppm TWA; 300 ppm STEL NIOSH: 200 ppm TWA; 590 mg/m ³ TWA 3000 ppm IDLH ; OSHA-Final PELs: 200 ppm TWA;	Same As Above

	590 mg/m3 TWA	
Isopropyl Alcohol	ACGIH: 200 ppm TWA; 400 ppm STEL NIOSH: 400 ppm TWA; 980 mg/m3 TWA 2000 ppm IDLH (10% LEL) ;OSHA-Final PELs: 400 ppm TWA; 980 mg/m3 TWA	Same As Above

**PROTECTIVE EQUIPMENTS:****PROCESS CONDITIONS:****ENGINEERING MEASURES:****RESPIRATORY EQUIPMENT:****HANDPROTECTION:****EYE PROTECTION:****OTHER PROTECTION:****HYGIENE MEASURES:**

Provide eyewash station.

Provide adequate ventilation. Fully equipped spray booth is recommended to ensure the workers legal exposure limits are not exceeded.

Wear respirator with appropriate cartridge for organic solvents and chemicals.

Wear approved gloves such as Neoprene, Nitrile or Rubber types.

Wear splash-proof goggles.

Wear appropriate clothing to prevent any possible skin contact.

DO NOT SMOKE IN THE WORK AREA. Wash at the end of each work shift and before eating, drinking or smoking. Promptly remove contaminated clothing.

9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid
COLOR:	Clear
ODOR:	Ketone characteristics
BOILING POINT:	160-312° F
RELATIVE DENSITY:	0.85 g/mL
VAPOR DENSITY:	Heavier than air
FLASH POINT:	50° F (10° C) (Closed Cup)
FLAMMABILITY LIMITS:	LOWER: NA UPPER: NA
SOLUBILITY VALUE (g/100g H ₂ O @ 20°C):	Insoluble
VOLATILE ORGANIC COMPOUND (VOC):	853 g/L

10- STABILITY AND REACTIVITY**STABILITY:**

Stable.

CONDITIONS TO AVOID:

Heat and fires. Ignition sources

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong alkalis or strong oxidizers. This material may dissolve some plastics, rubber compounds or coatings. May react with strong acids while in liquid form.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:Burning may produce various phenolic compounds CO and/or CO₂.**HAZARDOUS POLYMERIZATION:**

N/A

11-TOXICOLOGICAL INFORMATION**Toluene (CAS# 108-88-3):** ACGIH: A4-Not Classifiable as a Human Carcinogen; IARC: Group 3 carcinogen; No other toxicological information available.**Cyclohexanone (CAS#108-94-1) : LD50/LC50:** Draize test, rabbit, eye: 20 mg Severe; Draize test, rabbit, eye: 250 ug/24H Severe; Inhalation, mouse: LC50 = 2375 mg/m3; Inhalation, rat: LC50 = 8000 ppm/4H; Inhalation, rat: LC50 = 19000 mg/m3; Oral, mouse: LD50 = 1400 mg/kg; Oral, rat: LD50 = 1620 uL/kg; Oral, rat: LD50 = 1800 mg/kg; Skin, rabbit: LD50 = 1 mL/kg;<BR. **Carcinogenicity:** ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans **Epidemiology:** No data available. **Teratogenicity:** Animal studies have only shown harmful effects in the offspring of animals exposed to doses which also produced significant maternal toxicity. **Reproductive Effects:** See actual entry in RTECS for complete information. **Neurotoxicity:** No data available. **Mutagenicity:** See actual entry in RTECS for complete information**Methyl Ethyl Ketone (CAS# 78-93-3):**LD50/rabbit/skin/draize test = 500mg/24H Moderate; LC50/mouse/inhalation = 32mg/m3/4H; Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA. **Isopropyl Alcohol (CAS#67-63-0): LD50/LC50:** Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, mouse: LC50 = 53000 mg/m3; Inhalation, rat: LC50 = 16000 ppm/8H; Inhalation, rat: LC50 = 72600 mg/m3; Oral, mouse: LD50 = 3600 mg/kg; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Oral, rat: LD50 = 5000 mg/kg; Skin, rabbit: LD50 = 12800. Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Epidemiology: No information found. Teratogenicity:

A rat & rabbit developmental toxicity study showed no teratogenic effects at doses that were clearly maternally toxic. In a separate rat study, no evidence of developmental neurotoxicity was associated with gestational exposures to IPA up to 1200 mg/kg/d. Reproductive Effects: See actual entry in RTECS for complete information. Mutagenicity: See actual entry in RTECS for complete information. Neurotoxicity: In rats exposed to isopropanol by inhalation, acute neurotoxicity was noted at 1 and 6 hours at 5000 ppm, but only minimal effects were seen at 1500 ppm and the animals recovered within 5 hours. No toxicity was noted at 500 ppm.

Isopropyl Alcohol (CAS#67-63-0): LD50/LC50: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, mouse: LC50 = 53000 mg/m³; Inhalation, rat: LC50 = 16000 ppm/8H; Inhalation, rat: LC50 = 72600 mg/m³; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Oral, rat: LD50 = 5000 mg/kg; Skin, rabbit: LD50 = 12800. Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Epidemiology: No information found. Teratogenicity: A rat & rabbit developmental toxicity study showed no teratogenic effects at doses that were clearly maternally toxic. In a separate rat study, no evidence of developmental neurotoxicity was associated with gestational exposures to IPA up to 1200 mg/kg/d. Reproductive Effects: See actual entry in RTECS for complete information. Mutagenicity: See actual entry in RTECS for complete information. Neurotoxicity: In rats exposed to isopropanol by inhalation, acute neurotoxicity was noted at 1 and 6 hours at 5000 ppm, but only minimal effects were seen at 1500 ppm and the animals recovered within 5 hours. No toxicity was noted at 500 ppm

12- ECOLOGICAL INFORMATION

Toluene (CAS#108-88-3): Ecotoxicity: No data available; Environmental: From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades; Physical: Photo chemically produced hydroxyl radicals degrade substance.

Cyclohexanone (CAS#108-94-1) : Ecotoxicity: Fish: Rainbow trout: LC50 = 90.0 mg/L; 96 Hr.; 320.0 mg/L CaCO₃Fish: Rainbow trout: LC50 = 44.0 mg/L; 96 Hr.; 20.0 mg/L CaCO₃Fish: Fathead Minnow: LC50 = 527.0 mg/L; 96 Hr.; Flow-through, 24-26 degrees C,pH7.5Water flea Daphnia: EC50 = 820.0 mg/L; 48 Hr.; Unspecified Algae: EC50 = 20.0 mg/L; 96 Hr.; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 18.7 mg/L; 5 minutes; Microtox Test No data available. **Environmental:** This chemical is expected to rapidly volatilize based on its low melting and boiling point. Cyclohexanone is estimated to be highly mobile in soil. In view of its moderate vapor pressure and low adsorption to soil, it would be expected to volatilize from surface soil. Although data are lacking, it may also undergo direct photolysis on the soil surface. Cyclohexanone is readily biodegradable according to aerobic screening tests and therefore would be expected to biodegrade in soil. **Physical:** No information found. **Other:** The bioconcentration factor (BCF) for cyclohexanone can be estimated to be 2.4 based on the log Kow of 0.81 and a recommended regression equation. This BCF indicates that cyclohexanone will not bioconcentrate in aquatic organisms.

Methyl Ethyl Ketone (CAS#78-93-3): Ecotoxicity: Fish/Fathead Minnow/LC50 = 3220mg/l; Environmental: Substance evaporates in water with T1/2=3D (rivers) to 12D (lakes); Physical: Substance photo degrades in air with T1/2=2.3 days.

Isopropanol (CAS#67-63-0): Ecotoxicity: Fish: Fathead Minnow: >1000 ppm; 96h; LC50Daphnia: >1000 ppm; 96h; LC50Fish: Gold orfe: 8970-9280 ppm; 48h; LC50 IPA has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge. Environmental: No information available. Physical: THOD: 2.40 g oxygen/gCOD: 2.23 g oxygen/gBOD-5: 1.19-1.72 g oxygen/g Other: No information available.

13 – DISPOSAL CONSIDERATIONS

Hazardous wastes should be sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

I certify that all chemicals in this shipment comply with all applicable rules or orders under TSCA and that I am not offering a chemical substance for entry in violation of TSCA or any applicable rule or order under TSCA.

14 – TRANSPORT INFORMATION

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830 – United Kingdom (UK)

DOT / ADR / RID Classification:

DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL

PRIMARY HAZARD CLASS/DIVISION: 3

UN/UA NUMBER: UN1263

PACKING GROUP: II

IMDG and ADN Classification:

IMDG PROPER SHIPPING NAME: PAINT RELATED MATERIAL

IMDG UN CLASS: 3

IMDG UN NUMBER: UN1263
IMDG PACKING GROUP: II
IMDG LABEL: FLAMMABLE LIQUID
IMDG VESSEL STOWAGE: B

Air shipping this product is not advised and if done must be handled by a certified carrier according to IATA rules.



GHS LABEL:

DANGER

HIGHLY FLAMMABLE LIQUID AND VAPOR. VAPOR HARMFUL. CAUSES SERIOUS EYE IRRITATION. CAUSES SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL OR FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Refer to SDS for additional information on safe handling / use. - Keep out of reach of children. For Industrial Use Only.

Contains: Toluene (30-40%), Cyclohexanone (30-40%), Methyl Ethyl Ketone (10-20%), and Isopropyl Alcohol (10-20%). This product contains one or more chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm.

Hazards: Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs: Suspected of damaging fertility or the unborn child. Toxic to aquatic life.

Precautionary Statement(s): Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Store in a well-ventilated place. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area. Ground/bond container and receiving equipment.

First Aid:

Inhalation - Move person to fresh air. If symptoms occur obtain medical attention.

Skin Contact - Wash affected skin with soap and water. If symptoms occur obtain medical attention.

Eye Contact - If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms occur obtain medical attention.

Ingestion - Do not induce vomiting. Drink one glass of water. If symptoms occur obtain medical attention.

15 – REGULATORY INFORMATION

Hazards: Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs: Suspected of damaging fertility or the unborn child. Toxic to aquatic life.

Precautionary Statement(s): Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Store in a well-ventilated place. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapors/spray. Use only outdoors or in a well-ventilated area. Ground/bond container and receiving equipment.

CODES:



XN and XI



F

- XN and Xi=harmful
- F=highly flammable

R-Phrases:

R10: Flammable
R11: Highly flammable
R20: Harmful by inhalation
R25: Toxic if swallowed
R36: Irritating to eyes
R36/37: Irritating to eyes and respiratory system
R67: Vapors may cause drowsiness and dizziness

S-Phrases:

S7: Keep container tightly closed
S9: Keep container in a well-ventilated place
S16: Keep away from sources of ignition - No smoking
S24/25: Avoid contact with skin and eyes
S25: Avoid contact with eyes
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S29: Do not empty into drains
S33: Take precautionary measures against static discharges

16- DISCLAIMER

Above information is based on data supplied to us and is believed to be correct. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since the data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose. It is the user's obligation to determine the safe use of it.