



Safety Data Sheet

Section 1, Identification

Identity: Iron Sentry MCP 3601BC Low VOC Silver Roof Coating
Synonym: Isocyanate terminated polypropylene oxide pre-polymer
Manufacturer's Name: MCPU Polymer Engineering LLC
Address: 826 E. 4th Street, Pittsburg, KS 66762
Emergency Tel. Number: 1-800-535-5053
Information Tel. Number: 1-620-231-4239

Section 2, Hazard Identification



Danger

Flammable liquid and vapor.

Harmful if inhaled.

Causes serious eye irritation. (May cause temporary cornea injury)

Causes skin irritation. (Symptoms of itching, reddening and swelling).

May be fatal if swallowed and enters airways.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Warning: Contains Diisocyanate vapors. Do not breathe vapors or mists. Use with adequate ventilation.

This is a contact sensitizer. Avoid contact with skin or eyes.

Hazard Statements: H225: High flammable liquid and vapor
H319: Causes serious eye irritation.
H335: May cause respiratory irritation
H336: may cause drowsiness or dizziness

Precautionary Statement

Prevention P210, P233, P240, P241, P243, P280, P264, P261, P271.

Response

P370, P378, P303, P361, P353, P305, PP351, P338, P337, P313, P304, P340, and P312

Storage

P403, P233, P235 and P405

Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.



Section 3, Composition Information on Ingredients

Hazardous Ingredients	CAS Number	OHSA PEL	ACGIH TLV	Weight %
Methyl Acetate	79-20-9	This substance has workplace Exposures see Chapter #8		1-15%
Propylene Carbonate	108-32-7			1-8%
4,4' Diphenylmethane Diisocyanate (MDI)	101-68-8			<1.0%
Diphenylmethane Diisocyanate (MDI)	25686-28-6			<0.25%
Diphenylmethane Diisocyanate (MDI)	26447-40-5			<0.05%
Aluminum Paste	Mixture	N/A	10 mg/m ³	<25%

Section 4, First Aid Measures

Route(s) of Entry: Inhalation: 3 Skin: 3 Ingestion: 1

Health Hazards (acute and chronic): This material is a respiratory and skin sensitizer

Carcinogenicity: A component of this material is suspected of causing cancer if inhaled.

Signs and Symptoms of Exposure: Repeated inhalation of mists (during spraying operations) or vapors may cause flu like symptoms, the onset of which may be delayed by several hours. Extreme overexposure may result in permanent lung damage and/or death. In the event of exposure, consult a physician. Repeated skin exposure may cause irritation and possible skin sensitization.

Medical Conditions Aggravated by Exposure: Asthma and rash, persons already sensitized to isocyanates

Emergency First Aid Procedures: Contact a physician. If skin is contaminated, remove any contaminated clothing and wash skin with soap and water.

Eye Contact: flush with copious amounts of water for at least 15 min, consult a physician.

Inhalation: Use a respirator when aerosols or vapors are present. Remove to clean air, assist in breathing, if necessary, and consult a physician.

Ingestion: If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment.

Section 5, Fire and Explosion Hazard Data

Flash Point (method used): 6°F: (Setaflash Closed Cup)

Flammable Limits: 3.1-16% (V)

LEL: 3.1% **UEL:** 16%

Extinguishing Media: CO₂, Foam, dry chemical.

Special Fire Fighting Procedures: **If water is needed, use copious amounts because the reaction of water with hot isocyanate is vigorous and gives off large amounts of gas.**

Unusual Fire and Explosion Hazards: The vapor is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface water.

May release large quantities of gas. Vapors may contain isocyanates, which may be toxic. Vapors may also contain CO and nitrogen oxides, which are also toxic. Fire fighters must be equipped with self-contained breathing apparatus.



Section 6, Accidental Release Measures

Steps to be taken in Case Material is Released or Spilled: Immediately confine the spill using absorbent materials and collect with a solid absorbent. After the bulk of the spill is absorbed, shovel the absorbent into open top drums. Decontaminate the area with the following solution: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Decontamination Solution: 0.5% liquid detergent and 3% aqueous ammonia in water.

Waste Disposal Method: Remove the top of empty drums and decontaminate with the above solution. Solidify and decontaminate any residues. Dispose of as a hazardous waste. Do not dispose of in a municipal landfill unless specifically authorized by the landfill operator.

Section 7, Handling and Storage

Ventilation: Local Exhaust: Use only with good ventilation

Special: Not needed

Mechanical (General): Sufficient for general use

Other: None

Protective Gloves: Needed

Eye Protection: Needed

Other Protective Clothing or Equipment: NIOSH approved respirator

Work/Hygienic Practices- Use Normal Good Housekeeping Practices; Keep out of Reach of Children.

Wash exposed skin with soap and water during any breaks.

Section 8, Exposure Controls/Personal Protection

Respiratory Protection: If the material is at an elevated temperature or in aerosol form, wear an approved organic cartridge respirator. Note that the odor threshold is above the ACGIH value and odor cannot be used as a determined of respirator “break through”.

Do not breathe vapors. When concentrations exceed the established exposure limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) until vapors are exhausted. Follow respirator manufacturer’s directions for respirator use. Observe OSHA standard 29 CFR 1910. 134.

Assure compliance with the OSHA Standard 63 FR 1152.

Protective Gloves: Needed (minimize skin contact)

Eye Protection: Needed (goggles or safety glasses with shields), eye bath.

Other Protective Clothing or Equipment: NIOSH approved respirator

Precautions: Always wear chemical gloves and eye protection. If the material is heated or sprayed wear an approved organic cartridge respirator,

Chemical Name	Type	Exposure Limits Values	Source
Methyl Acetate	TWA	200 ppm	US. ACGIH Threshold limit Values (01 2010)
	STEL	250 ppm	US. ACGIH Threshold limit Values (01 2010).
	PEL	200 ppm 610 mg/m3	US. OSHA Table Z-1 Limits for Air Contains (29 CFR 1910.1000) (02 2006)



Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If you use in process enclosures, local exhaust ventilation, or other engineering controls should be used to maintain the exposures limits.

Environmental Controls: No data available

Section 9, Physical and Chemical Properties

Boiling Point:	132-136°F	Specific Gravity:	~1.06
Vapor Pressure:	179.5 mm Hg (68°F)	Melting Point:	NA
Vapor Density:	2.6	Evaporation Rate:	6.2

Solubility in water: Insoluble

Appearance and odor: Silver viscous liquid. Sweet, pungent aromatic hydrocarbon odor.

Section 10, Reactivity Data

Stability: ___ Unstable
X Stable

Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources.

Incompatibilities (materials to avoid contact with): Strong acid and strong oxidizing agents

Hazardous Polymerization: ___ May Occur X Will Not Occur.

Hazardous Decomposition Products: isocyanates, carbon monoxide, carbon dioxide, nitrogen oxides

Section 11, Toxicological Information

May cause respiratory irritation. May cause drowsiness or dizziness.

Product LD50 (Oral)	: MDI- Rat >2,000 mg/kg
(Dermal)	: MDI- Rabbit Slightly irritating
LC50 Inhalation	: MDI- Rat = 490 mg/m ³ 4 hours
Carcinogenicity	: Inhalation 2 years, 17hr/day 5 days/week. Exposure to level of 6 mg/m ³ .
Product LD-50 (Oral)	: Methyl acetate (Rat): 6,482 mg/kg (highest dose tested)
LC50 Inhalation	: Methyl acetate (Rat, 4 h) :> 49 mg/l
LD-50 (Dermal)	: Methyl acetate (Rabbit) :> 2,000 mg/kg (highest dose tested)
(Skin Corrosion)	: Methyl acetate (Rabbit, 24 h): Slight

Section 12, Ecological Information

Environmental Fate and Distribution: It is unlikely that significant environmental exposure in the air or water will arise.

Persistence and Degradation: Immiscible with water, but will react with water to produce an inert plastic product and CO₂ gas.

Toxicity: (For polymeric MDI): LC50 (Zebra Fish) > 1000 mg/l, EC50 (Daphnia magna) > 1000 mg/l, EC50 (E. Coli) > 100 mg/l.

For Methyl acetate: LC-50 (Fathead Minnow, 96 h): 320-399 mg/l (fish) Data not available, Aquatics Invertebrates EC50 (daphnid, 48h): 1,027 mg/l. Toxicity to Aquatics plants EC-50 (Selenastrum capricornutum, 72h): > 120 mg/l



Section 13, Disposal Considerations

Do not pour into waterways or down drains or sewers. Small amounts and empty drums should be treated with the decontamination solution (see Section 6). Solidify any liquids with an absorbent solid and dispose of following state and federal regulations. Dispose of as hazardous waste, paint waste.

Section 14, Transportation Information

DOT Proper Shipping Name: Paint

DOT Hazard Class: Flammable liquid

DOT UN/NA Number: UN 1263

Packing Group: II

Emergency Response Guide Number: 128

Sea Transport (IMDG): Do not ship by Sea

Air Transport (ICAO/IATA): Do not ship by air transport

Section 15, Regulatory Information

US Regulations

OSHA: This material is considered a hazardous material under the criteria outlined in the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200)

SARA Section 311-312, 313: Contains the following Sara 313 regulated materials:

Methyl Acetate immediate (acute) health hazard

Diisocyanates (C120) <40%, reportable quantity >50,000 lb

Aluminum Paste: <22% (reportable only in fume or dust forms)

Toxic Substances Control Act: All substances in this product are listed on the TSCA inventory.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):

Any spill above 5,000 lb. Should be reported to the appropriate authorities.

State Regulations: WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 16, Other Information

HMIS Ratings: Health-2 Flammability- 3 Reactivity- 1