

MATERIAL SAFETY DATA SHEET

Republic Powdered Metals, Inc.

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NPCA - HMIS RATING METHOD

HEALTH	2
FIRE	3
REACTIVITY	0

I. PRODUCT IDENTIFICATION

MSDS # 9021

TRADE NAME: RAMUC TYPE A - White & Colors

SYNONYMS: Paint/coating

SHIPPING NAME -- U.S. DOT: Paint, 3, UN1263, PGIII (packaged in 5 gal. pails)
 Consumer Commodity, ORM-D [49CFR 173.150 (c)] (packaged in 1 gal. ctns.)
 IMDG: Paint, 3, UN1263, PGIII, FP82°F
 IATA: Paint, 3, UN1263, PGIII

II. INGREDIENTS

HAZARDOUS COMPONENTS	CAS#	WEIGHT %	OSHA PEL	ACGIH TLV	SARA 313
Xylene	1330-20-7	<50	100 ppm	100 ppm	Yes
Di (2-ethylhexyl) Ethalate	117-81-7	<10	5 mg/m ³	5 mg/m ³	Yes
CarbonTetrachloride	56-23-5	<0.5	-	5 ppm	Yes

NON-HAZARDOUS COMPONENTS

ChlorinatedRubber	65441-53-7	<30	-	N/E	-
TitaniumDioxide*	13463-67-6	<20	-	5 mg/m ³	No

* Nuisance dust hazard only when removing dry coating - 5 mg/M3 respirable fraction, no asbestos, <1% SiO2.

TSCA Status: Ingredients are in-compliance with TSCA inventory requirements.

III. PHYSICAL DATA

INITIAL BOILING POINT: 282½F	SPECIFIC GRAVITY (H ₂ O = 1): 1.22
VAPOR DENSITY: Heavier than air	SOLUBILITY IN WATER: Non-soluble
FREEZING POINT: N/A	EVAPORATION RATE: Slower than n-Butyl Acetate
APPEARANCE AND ODOR: White or colored liquid with a sweet solvent odor.	VOC: 590 g/l
	pH: N/A

IV. FIRE AND EXPLOSION DATA

FLASH POINT °F (Tag Closed Cup): 82½F FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.0% UPPER: 7.0%

EXTINGUISHING MEDIA: Alcohol foam, CO₂, dry chemical, water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire exposed containers, structures and project personnel.

UNUSUAL FIRE & EXPLOSIVE HAZARDS: When heated (fire conditions), vapors and decomposition products may be released forming flammable or explosive mixtures in the air. Closed containers may explode when exposed to extreme heat (fire). Vapors are heavier than air and may travel along the ground, pit or sewer line to some distant source of ignition and flash back.

SENSITIVITY TO IMPACT: N/A SENSITIVITY TO STATIC DISCHARGE: POSSIBLE

V. REACTIVITY DATA

STABILITY: Stable CONDITIONS TO AVOID: Sparks, heat and open flame.

HAZARDOUS POLYMERIZATION: Will not occur. N/A

INCOMPATIBILITY: Avoid oxidizing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: CO, oxides of nitrogen, CO₂, phosgene, hydrogen chloride.

VI. HEALTH HAZARD INFORMATION

EFFECTS OF OVEREXPOSURE - AVENUE OF ENTRY:

EYES: Contact with the eye may cause irritation and/or visual disturbances.

SKIN: Prolonged or repeated contact with the skin may cause irritation and/or dermatitis. May be absorbed through the skin.

INHALATION: Excessive inhalation of vapors may cause central nervous system depression characterized by dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and coma.

SWALLOWING: Aspiration of this material into the lungs may cause chemical pneumonitis which can be fatal. Ingestion may cause gastrointestinal disturbances such as nausea, vomiting and diarrhea.

OTHER PRECAUTIONS: Overexposure to xylene may cause fetal development effects.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm. (Prop 65).

FIRST AID:

IF IN EYES: Immediately flush eyes with large amounts of water for 15 minutes. Seek medical attention.

IF ON SKIN: Wash skin thoroughly with hand cleaner, followed by soap & water. If irritation persists, seek medical attention.

IF INHALED: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical attention.

IF SWALLOWED: Immediately seek medical attention. Do not induce vomiting. Give 1 glass of milk, only if conscious. Seek medical attention.

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Stop leak if no risk is involved. Stay upwind. Take up small spills with sand or other non-combustible absorbent material. Flush area with water. Dike large spills for later disposal.

WASTE DISPOSAL METHOD: This product is a US EPA ignitable hazardous waste. Dispose of as an ignitable hazardous waste in accordance with local, state and federal regulations.

PRECAUTIONS TO TAKE IN STORAGE AND HANDLING: Avoid prolonged or repeated breathing of vapors, mists or fumes. Avoid prolonged or repeated contact with skin or eyes. Store in buildings or areas designed to comply with OSHA 1910.106. Keep in a closed, labeled container within a cool (well shaded), dry-ventilated area. Protect from physical damage. Keep containers closed when not in use.

OTHER PRECAUTIONS: Ground and bond drums. Do not use pressure to empty drums. If post application/use processing of this product generates dust or if spray application is made exposure limits apply. Handle and use in accordance with OSHA 29CFR1919.106/local codes. Do not wear contaminated clothing, discard contaminated footwear. **CAUTION: KEEP OUT OF REACH OF CHILDREN.**

VIII. SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: If ventilation does not maintain inhalation exposures below TLV(PEL), use MSHA/NIOSH approved units as per current 29CFR1910.134 and manufacturers "instructions" and "warnings".

VENTILATION: Provide sufficient general or local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below flammable vapor concentrations. Local exhaust is necessary for use in enclosed spaces.

PROTECTIVE GLOVES: As required, industrial resistant flexible-type gloves (NBR, viton or equal).

EYE PROTECTION: Industrial safety glasses with side shields. Chemical goggles, if splashing is possible.

OTHER PROTECTIVE EQUIPMENT: Wear industrial-type work clothing and safety footwear. Depending on working conditions, i.e., contact potential wear resistant protective garments such as head/neck cover, aprons, jackets, pants, coveralls, boots, etc.

HYGIENIC PRACTICES: Wash exposed areas promptly and thoroughly after contact.

IX. DISCLAIMER

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with Republic or not. Recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

DEFINITIONS

HMIS - Hazardous Materials Identification System
DOT - Department of Transportation
PEL - Permissible Exposure Limit
LC 50 - Lethal Concentration
RCRA - Resource Conservation & Recovery Act
T/S - Trade Secret

VOC - Volatile Organic Compound
CAS - Chemical Abstracts Service
TLV - Threshold Limit Value
LD 50 - Lethal Dose
CFR - Code of Federal Regulations
N/A - Not Available

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety & Health Administration
NPCA - National Paint & Coatings Association
SARA - Superfund Amendments & Reauthorization Act of 1986
NIOSH - National Institute for Occupational Safety & Health
N/E - Not Established

TRADE NAME: RAMUC TYPE A - White & Colors

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