

RAMUC®



CLEAN AND PREP SOLUTION 4 X 1 US GAL

Version 1.3
 REVISION DATE: 10/26/2007

Print Date 02/27/2008

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : CLEAN AND PREP SOLUTION 4 X 1 US GAL
 Product code : 9306000001K

COMPANY : Republic Powdered Metals
 2628 Pearl Road
 Medina, OH 44256

Telephone : (800) 551-7081
 Emergency Phone: : 1-800-551-7081
 After Hours: Chemtrec 1-800-424-9300

Product use : Cleaning Etching

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Light Yellow. Liquid. May cause mucous membrane irritation. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause mucous membrane irritation.
 Eyes : May cause irreversible damage and burns to the eyes.
 Ingestion : May cause burns to lips, tongue, oral mucosa, esophagus and stomach.
 Skin : May cause severe burns, blistering and skin damage.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Prolonged skin contact may cause irritation, burns or dermatitis.

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Non-Hazardous Ingredients	NJTSRN# 51721300-5908P	> 60.0
Phosphoric acid	7664-38-2	30.0 - 60.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation : Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

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- Eye contact : Flush with water for 15 minutes. If irritation persists, get medical attention.
- Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Get medical attention. Do not induce vomiting.
- Notes to physician : Not applicable.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point : Not available.
- Method : Not available.
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : This product is not expected to burn under normal conditions of use.
- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Hydrogen chloride. Smoke, fumes.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : This product not expected to ignite under normal conditions of use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Transfer to appropriate container for disposal. Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal. Use appropriate protective equipment. Avoid contact with material.

SECTION 7 - HANDLING AND STORAGE

Handle in compliance with common hygienic practices. Clean hands thoroughly after handling. Keep from freezing. Do not use in confined or poorly ventilated areas. Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Store in sealed containers in a dry, ventilated warehouse location above freezing.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Not required under normal conditions of use. Wear appropriate, NIOSH/MSHA approved respirator with combination particulate filter and vapor/gas removing cartridge when the ventilation is not adequate or if it is necessary to abrade or grind surfaces coated with this product.
- Hand protection : Use suitable impervious rubber or vinyl gloves and protective apparel to

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- reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
 - Skin and body protection : Prevent contact with shoes and clothing. Use rubber apron and overshoes.
 - Protective measures : Other equipment not normally required. Use professional judgment in the selection, care, and use.
 - Engineering measures : Not required under normal conditions of use. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

No known components with exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Light Yellow
- Odor : Light
- pH : 1.5
- Vapour pressure : 1 mmHg
- Vapor density : Not available.
- Melting point/range : Not available.
- Freezing point : Not available.
- Boiling point/range : 462 °F, 239 °C
- Water solubility : Not available.
- Specific Gravity : 1.24
- % Volatile Weight : 62 %

SECTION 10 - REACTIVITY / STABILITY

- Substances to avoid : Strong acids. Strong bases.
- Stability : Stable
- Hazardous polymerization : Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Phosphoric acid, CAS-No.: 7664-38-2

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Acute oral toxicity (LD-50 oral) 1,530 mg/kg (Rat) 1,530 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal) 2,740 mg/kg (Rabbit) 2,740 mg/kg (Rabbit)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D002: Reportable Quantity = 100 lbs. (Characteristic of corrosivity)

This classification applies only to the material as it was originally produced.

Disposal Method : Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Contains Phosphoric acid), 8, UN3264, PG III, LIMITED QUANTITY

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

SARA 313 Components : None present or none present in regulated quantities.

SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :

OSHA Status: Considered : Irritant
hazardous based on the
following criteria:

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 0 g/l
exempt solvent)

VOC Method 310 : 62 %



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U.S. State Regulations:

Penn RTK Components	:	Non-Hazardous Ingredients Phosphoric acid	NJTSRN# 51721300-5908P 7664-38-2
NJ RTK Components	:	Non-Hazardous Ingredients Phosphoric acid	NJTSRN# 51721300-5908P 7664-38-2

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:

None known.

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	3
Flammability	0
Reactivity	1
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

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|--------------------------------------------------------------------------------|----------------------------------------------------------|
| ACGIH - American Conference of Governmental Hygienists | PEL - Permissible Exposure Limit |
| NTP - National Toxicology Program | RCRA - Resource Conservation and Recovery Act |
| DOT - Department of Transportation | RTK - Right To Know |
| DSL - Domestic Substance List | SARA - Superfund Amendments and Reauthorization Act |
| EPA - Environmental Protection Agency | STEL - Short Term Exposure Limit |
| HMIS - Hazardous Materials Information System | TLV - Threshold Limit Value |
| IARC - International Agency for Research on Cancer | TSCA - Toxic Substances Control Act |
| MSHA - Mine Safety Health Administration | TWA - Time Weighted Average |
| NDSL - Non-Domestic Substance List | V - Volume |
| NIOSH - National Institute for Occupational Safety and Health | VOC - Volatile Organic Compound |
| CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act | WHMIS - Workplace Hazardous Materials Information System |
| OSHA - Occupational Safety and Health Administration | |