

RAMUC®

KOP-COAT

MATERIAL SAFETY DATA SHEET

Supplier:	Kop-Coat, Inc. RAMUC 36 Pine Street Rockaway, NJ 07866	EMERGENCIES: Health/spills:.....: Chemtrec Assistance.....: Chemtrec Outside USA.....:	800-548-0489 800-424-9300 703-527-3887
		Kop-Coat, Inc. Product Information.....: Outside USA.....:	800-221-4466 973-625-3100

1. Product Information

Product name	Ramuc Type EP - 311 White - Part A
Product code	908131100\1

Issuing date: 12/16/2010 **Contact person:** Environmental Health and Safety

2. Hazards identification

Emergency Overview

Appearance: White Liquid **Odor:** Hydrocarbon

Hazards: DANGER!
Flammable liquid and vapor. Harmful or fatal if swallowed. Causes eye and skin irritation. Vapor harmful.

Potential health effects

Primary Routes of Entry: Eye contact, ingestion, skin contact, inhalation, and absorption.

Eye contact:

May cause moderate to severe eye irritation. Symptoms may include stinging, tearing, redness and swelling of eyes. Not expected to cause permanent damage if promptly rinsed from eyes.

Ingestion:

Aspiration of this product into the lungs during ingestion, gagging or vomiting may cause lung damage, which can be fatal. May cause gastrointestinal distress. Symptoms may include irritation to the mouth, throat and stomach and gastrointestinal disturbances such as nausea, vomiting or diarrhea.

Skin contact:

May cause moderate skin irritation. Symptoms may include dryness, itching, burning sensation, redness, cracking and swelling depending on the extent of exposure. May be harmful if absorbed through the skin in toxic amounts and cause systemic effects. May cause allergic skin reactions in susceptible individuals, which becomes evident upon reexposure to this material.

Inhalation:

May cause irritation to the nose, throat and respiratory tract. Inhalation of high concentrations of vapors may cause respiratory tract irritation and central nervous system depression. Symptoms may include headache, nausea, dizziness and drowsiness. Continued inhalation may result in unconsciousness or death.

Chronic effects:

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. Prolonged or repeated dermal exposure to this product can cause skin dermatitis characterized by red, dry, scaly skin.

Target Organs: Not Determined

This product contains carcinogens or potential carcinogens as listed by IARC or NTP. See Section 3 NTP, IARC (Carc.) columns for chemical identification.

3. Composition/information on ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Weight %</u>	<u>Carc</u>
Titanium dioxide	13463-67-7	30 - 50	*
Aluminum Hydroxide	21645-51-2	1 - 10	
Polymer of epoxy resin and bisphenol A	25036-25-3	30 - 50	
Xylene	1330-20-7	1 - 10	
Methyl isobutyl ketone	108-10-1	1 - 10	
Butyl glycidyl ether	2426-08-6	1 - 10	
Isopropyl alcohol	67-63-0	1 - 10	
Ethylbenzene	100-41-4	1 - 10	*
Silicon dioxide/silica (Amorphous/Fumed)	7631-86-9	1 - 10	
n-Butanol	71-36-3	1 - 10	

4. FIRST AID MEASURES

Eye contact:

Quickly and gently blot or brush chemical off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into unaffected eye or onto the face. Call poison control center, hospital emergency room, or physician immediately.

Ingestion:

NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 2 to 8 oz. (60 to 240 mL) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Immediately obtain medical advice.

Skin contact:

As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Immediately obtain medical advice. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

Inhalation:

This product is combustible/flammable. Take proper precautions (e.g. remove any sources of ignition). Remove source of contamination or move victim to fresh air. Keep victim quiet and warm until emergency help arrives.

Note to Physician :

There is no specific antidote for effects from overexposure to this material. Treatment should be directed at the control of symptoms and the clinical condition.

5. FIRE-FIGHTING MEASURES

Flash point 60 deg F/ 16 deg C

Extinguishing media:

Use alcohol foam, dry chemical, carbon dioxide or any Class B fire extinguishing agent. Water may be unsuitable for extinguishing fires. Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Hazardous combustion products:

See Section 10 for potential decomposition products.

Protective equipment and precautions for firefighters:

Evacuate all persons from the fire area to a safe location. Move non-burning material, as feasible, to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazards while extinguishing the fire. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Thoroughly decontaminate all protective equipment after use. Containers of this material may build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers. Use water spray to disperse vapors if a spill or leak has not ignited. DO NOT extinguish a fire resulting from the flow of flammable liquid until the flow of the liquid is effectively shut off. This precaution will help prevent the accumulation of an explosive vapor-air mixture after the initial fire is extinguished.

6. ACCIDENTAL RELEASE MEASURES

Personal & Environmental Precautions:

Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal using non-sparking tools. Follow personal protective equipment recommendations found in Section 8. Personal protection needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the training and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods of Containment & Clean-up and Other Information:

This product, if released in large enough quantities, may need to be reported to the US Coast Guard National Response Center at 1-800-424-8802. Contain spills with dikes and absorbents (sand, earth, dry chemical absorbent) to prevent migration and entry into waterways.

7. HANDLING AND STORAGE

Handling:

Keep container closed and upright when not in use. To prevent generation of static discharges, use bonding/grounding connection when transferring material. Vapors may accumulate and travel to distant ignition sources and flashback. Extinguish all sources of ignition including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Since empty containers may retain product residue and flammable vapors, observe precautions even after container is emptied. Do not cut, puncture, or weld on or near empty containers. Do not smoke where product is used or stored. Avoid contact with eyes, skin or clothing. Avoid inhalation (vapor, mist, dust or fume, as applicable). Use only with adequate ventilation. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling.

Storage:

Store in areas/buildings designed to comply with OSHA 1910.106. Store away from sources of ignition and heat. Keep containers closed when not in use. Store in cool, well ventilated space away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	CAS-No.	Z-1 PEL	Z-2 PEL	ACGIH TLV
Titanium dioxide	13463-67-7	15 MGM3		10 MGM3
Aluminum Hydroxide	21645-51-2			
Polymer of epoxy resin and bisphenol A	25036-25-3			
Xylene	1330-20-7	435 MGM3 (100 PPM) 410 MGM3 (100		100 PPM

Methyl isobutyl ketone	108-10-1	PPM)	50 PPM
Butyl glycidyl ether	2426-08-6	270 MGM3 (50 PPM)	3 PPM
Isopropyl alcohol	67-63-0	980 MGM3 (400 PPM)	200 PPM
Ethylbenzene	100-41-4	435 MGM3 (100 PPM)	100 PPM
Silicon dioxide/silica (Amorphous/Fumed)	7631-86-9		
n-Butanol	71-36-3	300 MGM3 (100 PPM)	20 PPM

Engineering measures:

Use adequate ventilation to maintain airborne concentrations at levels below permissible or recommended occupational exposure limits. Supplementary local exhaust ventilation may be necessary in poorly ventilated spaces, during spraying, heating or other non-routine activities.

Eye/face protection:

Wear chemical-resistant glasses and/or goggles and a face shield when eye and face contact is possible due to splashing or spraying of material.

Skin protection:

Chemical-resistant, flexible-type gloves (neoprene, nitrile or equal) to prevent contact. Gloves should be rinsed and removed immediately after use. Wash hands after removing gloves. Wear chemical-resistant clothing (e.g. apron, pants, coveralls) and safety footwear as appropriate.

Respiratory protection:

Respiratory protection may be necessary under certain use conditions. Under such conditions, an appropriate, properly fitted NIOSH-approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with 29 CFR 1910.34 and 42 CFR 84.

General hygiene considerations:

Facilities utilizing this material should be equipped with an eyewash station and safety shower. Thoroughly clean shoes and wash contaminated clothes before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Appearance:	White Liquid
Odor	Hydrocarbon
pH	Not applicable.
Boiling point	237 deg F/ 114 deg C
Flash point	60 deg F/ 16 deg C
Solubility in water:	Slightly Soluble
Specific Gravity:	1.39
Weight per gallon (LB/GAL) :	11.6
Evaporation rate (n-Butyl acetate = 1):	< 1
Volatile by Weight (including water and exempt compounds) (%):	26%
Volatile Organic Content (VOC):	358 g/l

10. STABILITY AND REACTIVITY

Stability:

Hazardous polymerization will not occur by itself. Masses of more than one pound of epoxy resin product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up. Stable under normal conditions.

Incompatibility:

Oxidizing agents, acids and bases. Oxidizing and reducing agents. Keep away from heat, sparks and open flames.

Hazardous decomposition products:

Carbon monoxide, carbon dioxide, oxides of nitrogen and other toxic organic compounds.

11. TOXICOLOGICAL INFORMATION

Titanium dioxide (CAS# 13463-67-7): While IARC has concluded there is sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide, several epidemiological studies have found no association between occupational exposure to titanium dioxide and risk for cancer. In addition, IARC states that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints."

n-Butanol (CAS# 71-36-3): Prolonged or excessive exposure to n-butanol has been found to cause damage to the liver, kidneys, hearing and sense of balance.

Methyl isobutyl ketone (CAS# 108-10-1): Methyl isobutyl ketone has been found to cause liver and kidney damage and harm to the fetus in animal studies. Relevance to humans is uncertain.

Xylene: Laboratory animals exposed to high levels of xylene showed evidence of effects on the liver, kidneys, lungs, spleen, and caused hearing loss. Rats exposed during pregnancy to xylene showed fetotoxic effects.

Ethylbenzene: Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice.

12. ECOLOGICAL INFORMATION

Ecological evaluation of this material has not been performed; however do not allow the product to be released to the environment without governmental approval/permits.

13. DISPOSAL CONSIDERATIONS

Waste from this material may be a listed and/or characteristic hazardous waste. Dispose of material, contaminated absorbent, container and unused contents in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transportation:

This product may be reclassified as Consumer Commodity, ORM-D, when shipped by ground; packaging quantity limitations apply.

By Ground:

DOT Hazard Class: 3
DOT Proper Shipping Name: PAINT
DOT Packing Group: II

DOT UN Number: UN1263
 By Air:
 IATA Hazard Class: 3
 IATA Proper Shipping Name: PAINT
 IATA Packing Group: II
 IATA UN Number: UN1263
 By Sea:
 IMDG Hazard Class: 3
 IMDG Proper Shipping Name: PAINT
 IMDG Packing Group: II
 IMDG UN Number: UN1263

15. REGULATORY INFORMATION

EPA registration number: Not applicable.

Pest Registration Act number: Not applicable.

Other:
 Not determined.

Chemical Name	CAS-No.	TSCA 12B	SARA 313	TSCA	DSL	EINECS	Prop 65	Whmis
Titanium dioxide	13463-67-7			*	*	*		
Aluminum Hydroxide	21645-51-2			*	*	*		
Polymer of epoxy resin and bisphenol A	25036-25-3			*	*	*		*
Xylene	1330-20-7		*	*	*	*		*
Methyl isobutyl ketone	108-10-1		*	*	*	*		*
Butyl glycidyl ether	2426-08-6			*	*	*	*	
Isopropyl alcohol	67-63-0		*	*	*	*		*
Ethylbenzene	100-41-4		*	*	*	*	*	*
Silicon dioxide/silica (Amorphous/Fumed)	7631-86-9			*	*	*		*
n-Butanol	71-36-3		*	*	*	*		*

16. OTHER INFORMATION

HMIS Health: 2* HMIS Flammability: 3 HMIS Physical Hazard: 0

NFPA Health: 2 NFPA Flammability: 3 NFPA Instability/Reactivity: 0

NOTICE: This document is generated for the purpose of distributing health, safety, and environmental data. The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed, or implied, regarding correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. Kop-Coat makes no warranty with respect thereto and disclaims all liability from reliance thereon.

Key:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Registry Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLA RQ	CERCLA Reportable Quantity
CFR	Code of Federal Regulations
CPR	Cardiopulmonary resuscitation

DSL	Domestic Substances List of Canada
EINECS	European Inventory of Existing Chemical Substances
EPCRA	Emergency Planning and Community Right-to-know Act
EPCRA EHS	EPCRA Extremely Hazardous Substance
EPCRA TPQ	EPCRA Threshold Planning Quantity
oF	Fahrenheit degrees
g/l	Grams per liter
gal	Gallons
Group A3	Carcinogen Category - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Group A4	Carcinogen Category - Not Classifiable as a Human Carcinogen
HMIS	Hazardous Materials Identification System - Chemical Rating
IARC	International Agency for Research on Cancer
lbs or LBS	Pounds
MGM3	Milligrams per cubic meter
MIR	Maximum Incremental Reactivity
MSDS	Material Safety Data Sheet
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPM	Parts per million
Proposition 65	California's Safe Drinking Water and Toxic Enforcement Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
VOL	Volume
WT	Weight
WHMIS	Canadian Workplace Hazardous Materials Information System
UN	United Nations

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