SAFETY DATA SHEET

RAMUC® KOP-COAT

Revision Date 24-Sep-2015
Version 1

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Ramuc Type EP - 314 Vermillion - Part A
Product code 908131401

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Pool paint
Restrictions on use Read label instructions and SDS

1.3 Details of the supplier of the safety data sheet

Supplier

Kop-Coat, Inc.
RAMUC
36 Pine Street
Rockaway, NJ 07866
1-800-221-4466

1.4 Emergency telephone number

Emergency telephone number

Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 2

2.2 Label elements

Signal Word
Danger

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing genetic defects
Suspected of causing cancer

Suspected of damaging fertility or the unborn child
May cause respiratory irritation
May cause damage to organs through prolonged or repeated exposure
Highly flammable liquid and vapor

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing must not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/Bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Precautionary Statements - Response
If exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
Wash contaminated clothing before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing
In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

2.3. Other Hazards Hazards not otherwise classified (HNOC)
Not Applicable

2.4 Other information
Not Applicable

Unknown Acute Toxicity 1.05635025% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance
Not applicable
Mixture

Chemical Name	CAS-No	Weight %

Polymer of epoxy resin and bisphenol A	25036-25-3	40 - 50
Xylene	1330-20-7	10 - 20
Methyl isobutyl ketone	108-10-1	10 - 20
BISPHENOL A-DIGLYCIDYLETHER POLYMER	25085-99-8	10 - 20
Butyl glycidyl ether	2426-08-6	5 - 10
Ethylbenzene	100-41-4	1 - 5
OXIRANE, MONO [(C12-14-ALKYLOXY)METHYL)]DERIVATIVES	68609-97-2	< 1
Toluene	108-88-3	< 1

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first-aid measures

General advice For further assistance, contact your local Poison Control Center.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Call a poison control center or doctor for treatment advice.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a poison control center or doctor for treatment advice.

Inhalation Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a poison control center or doctor for treatment advice.

Ingestion Rinse mouth. Do NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms See Section 2.2, Label Elements and/or Section 11, Toxicological effects.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician There is no specific antidote for effects from overexposure to this material. Treat symptomatically.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Foam Carbon dioxide (CO_2) Dry chemical Water spray or fog Water may be used to cool and prevent the rupture of containers that are exposed to the heat from a fire.

Unsuitable Extinguishing Media Water may be unsuitable for extinguishing fires.

5.2 Special hazards arising from the substance or mixture

Special Hazard
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) Vapors may travel to areas away from work site before igniting/flashing back to vapor source Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Combustion Products Possible formation of carbon oxides, nitrogen oxides, and hazardous organic compounds.

Explosion Data
Sensitivity to Mechanical Impact Not sensitive.
Sensitivity to Static Discharge Yes.

5.3 Advice for firefighters

Evacuate personnel to safe areas. Move non-burning material, as feasible, to a safe location as soon as possible. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers with flooding quantities of water until well after fire is out. Thoroughly decontaminate all protective equipment after use. 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

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Refer to protective measures listed in sections 7 and 8. Avoid exceeding of the given occupational exposure limits (see 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.

6.2 Environmental precautions

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological information.

6.3 Methods and materials for containment and cleaning up

Methods for Containment Dike far ahead of liquid spill for later disposal. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Ground and bond containers when transferring material. Take precautionary measures against static discharges. Use non-sparking tools and equipment.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Ground and bond containers when transferring material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Use according to package label instructions. Empty containers may retain product residue or vapor. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. No smoking.

Hygiene measures Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep in properly labeled containers. Keep away from food, drink and animal feedingstuffs. Store in accordance with local regulations.

Materials to Avoid No materials to be especially mentioned.

8. Exposure controls/personal protection

8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	British Columbia	Alberta	Quebec	Ontario TWAEV
Xylene 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m³	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 434 mg/m³ STEL: 150 ppm STEL: 651 mg/m³	TWA: 100 ppm TWA: 434 mg/m³ STEL: 150 ppm STEL: 651 mg/m³	TWA: 100 ppm STEL: 150 ppm
Methyl isobutyl ketone 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m³	TWA: 20 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 205 mg/m³ STEL: 75 ppm STEL: 307 mg/m³	TWA: 50 ppm TWA: 205 mg/m³ STEL: 75 ppm STEL: 307 mg/m³	TWA: 20 ppm STEL: 75 ppm
Butyl glycidyl ether 2426-08-6	TWA: 3 ppm S*	TWA: 50 ppm TWA: 270 mg/m³	TWA: 3 ppm Skin Adverse reproductive effect Sensitizer	TWA: 3 ppm TWA: 16 mg/m³ Skin	TWA: 25 ppm TWA: 133 mg/m³	TWA: 3 ppm Skin
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m³ STEL: 125 ppm STEL: 543 mg/m³	TWA: 100 ppm TWA: 434 mg/m³ STEL: 125 ppm STEL: 543 mg/m³	TWA: 20 ppm
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	TWA: 20 ppm Adverse reproductive effect	TWA: 50 ppm TWA: 188 mg/m³ Skin	TWA: 50 ppm TWA: 188 mg/m³ Skin	TWA: 20 ppm

8.2 Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Use adequate ventilation to maintain airborne concentrations at levels below permissible or recommended occupational exposure limits.

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8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields. If splashes are likely to occur, wear:. Tightly fitting safety goggles. Face-shield.

Skin and body protection Solvent-resistant gloves. Nitrile rubber. Neoprene gloves. Impervious butyl rubber gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Wear suitable protective clothing. Remove and wash contaminated clothing before re-use.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures See section 7 for more information

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Red
Odor	Hydrocarbon-like
Odor Threshold	No information available

Property	Values	Remarks • Methods
pH		No information available
Melting/freezing point		No information available
Boiling point/boiling range	114 °C / 237 °F	
Flash Point	16 °C / 61 °F	
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		
upper flammability limit		No information available
lower flammability limit		No information available
Vapor pressure		No information available
Vapor density		No information available
Specific Gravity		No information available
Water solubility		No information available
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic	> 22 mm2/s	
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidizing Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content	< 340 g/L
Density	8.52 lb/gal

10. Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Keep away from heat, sparks and flames.

10.5 Incompatible Materials

No materials to be especially mentioned.

10.6 Hazardous Decomposition Products

None under normal use conditions. Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

11.1 Acute toxicity

Numerical measures of toxicity: Product Information

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity 1.05635025% of the mixture consists of ingredient(s) of unknown toxicity

Oral LD50 5,663.00 mg/kg
Dermal LD50 11,071.00 mg/kg
LC50 (Vapor) 26.00 mg/l

Numerical measures of toxicity: Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Xylene 1330-20-7	3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
Methyl isobutyl ketone 108-10-1	2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	> 2000 ppm (Rat) 4 h
Butyl glycidyl ether 2426-08-6	1660 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	= 2590 ppm (Rat) 4 h
Ethylbenzene 100-41-4	3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Toluene 108-88-3	2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 28.1 mg/L (Rat) 4 h

11.2 Information on toxicological effects

Skin corrosion/irritation
Product Information
• No information available
Component Information
• No information available

Eye damage/irritation
Product Information
• No information available
Component Information
• No information available

Respiratory or skin sensitization
Product Information
• No information available
Component Information
• No information available

Germ cell mutagenicity
Product Information
• No information available
Component Information
• No information available

Carcinogenicity
Product Information
• The table below indicates whether each agency has listed any ingredient as a carcinogen
Component Information
• Contains a known or suspected carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA

Methyl isobutyl ketone 108-10-1	-	Group 2B	-	
Ethylbenzene 100-41-4	-	Group 2B	-	

Reproductive toxicity
Product Information
• No information available
Component Information
• No information available

STOT - single exposure
No information available

STOT - repeated exposure

• No information available

Other adverse effects
Product Information
• No information available
Component Information
• No information available

Aspiration hazard
Product Information
• No information available
Component Information
• No information available

12. Ecological information

12.1 Toxicity

Ecotoxicity No information available

42.33185 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Xylene 1330-20-7	-	LC50: 96 h Pimephales promelas 23.53 - 29.97 mg/L static LC50: 96 h Cyprinus carpio 780 mg/L semi-static LC50: 96 h Cyprinus carpio 780 mg/L LC50: 96 h Poecilia reticulata 30.26 - 40.75 mg/L static LC50: 96 h Pimephales promelas 13.4 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L static LC50: 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L LC50: 96 h Lepomis macrochirus 13.1 - 16.5 mg/L flow-through LC50: 96 h Lepomis macrochirus 19 mg/L LC50: 96 h Lepomis macrochirus 7.711 - 9.591 mg/L static	EC50: 48 h water flea 3.82 mg/L LC50: 48 h Gammarus lacustris 0.6 mg/L
Methyl isobutyl ketone 108-10-1	EC50: 96 h Pseudokirchneriella subcapitata 400 mg/L	LC50: 96 h Pimephales promelas 496 - 514 mg/L flow-through	EC50: 48 h Daphnia magna 170 mg/L
Ethylbenzene 100-41-4	EC50: 72 h Pseudokirchneriella subcapitata 4.6 mg/L EC50: 96 h Pseudokirchneriella subcapitata 438 mg/L EC50: 72 h	LC50: 96 h Oncorhynchus mykiss 11.0 - 18.0 mg/L static LC50: 96 h Oncorhynchus mykiss 4.2 mg/L semi-static LC50: 96 h Pimephales	EC50: 48 h Daphnia magna 1.8 - 2.4 mg/L

	Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L static EC50: 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L static	promelas 7.55 - 11 mg/L flow-through LC50: 96 h Lepomis macrochirus 32 mg/L static LC50: 96 h Pimephales promelas 9.1 - 15.6 mg/L static LC50: 96 h Poecilia reticulata 9.6 mg/L static	
Toluene 108-88-3	EC50: 96 h Pseudokirchneriella subcapitata 433 mg/L EC50: 72 h Pseudokirchneriella subcapitata 12.5 mg/L static	LC50: 96 h Pimephales promelas 15.22 - 19.05 mg/L flow-through LC50: 96 h Pimephales promelas 12.6 mg/L static LC50: 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L static LC50: 96 h Oncorhynchus mykiss 5.8 mg/L semi-static LC50: 96 h Lepomis macrochirus 11.0 - 15.0 mg/L static LC50: 96 h Oryzias latipes 54 mg/L static LC50: 96 h Poecilia reticulata 28.2 mg/L semi-static LC50: 96 h Poecilia reticulata 50.87 - 70.34 mg/L static	EC50: 48 h Daphnia magna 5.46 - 9.83 mg/L Static EC50: 48 h Daphnia magna 11.5 mg/L

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Discharge into the environment must be avoided

Chemical Name	log Pow
Xylene 1330-20-7	3.15
Methyl isobutyl ketone 108-10-1	1.19
Ethylbenzene 100-41-4	3.118
Toluene 108-88-3	2.65

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1 Waste treatment methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

14. Transport Information

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

DOT

Proper shipping name UN1263, Paint, 3, PG II

MEX no data available

IMDG
Proper shipping name UN1263, Paint, 3, PG II

IATA
Proper shipping name UN1263, Paint, 3, PG II

15. Regulatory information

15.1 International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	-
ENCS	-
IECSC	Complies
KECL	-
PICCS	-
AICS	Complies
NZIoC	-

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

15.2 U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values %
Xylene 1330-20-7	1.0
Methyl isobutyl ketone 108-10-1	1.0
Ethylbenzene 100-41-4	0.1

15.3 Pesticide Information

Not applicable

15.4 U.S. State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Methyl isobutyl ketone - 108-10-1	Carcinogen Developmental
Ethylbenzene - 100-41-4	Carcinogen
Toluene - 108-88-3	Developmental Female Reproductive
Ethanol - 64-17-5	Carcinogen

	Developmental
METHANOL - 67-56-1	Developmental
CUMENE - 98-82-8	Carcinogen
Benzene - 71-43-2	Carcinogen Developmental Male Reproductive

16. Other information

NFPA	**Health Hazard** 2	**Flammability** 3	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 2*	**Flammability** 3	**Physical Hazard** 0	**Personal protection** X

Legend:
ACGIH (American Conference of Governmental Industrial Hygienists)
Ceiling (C)
DOT (Department of Transportation)
EPA (Environmental Protection Agency)
IARC (International Agency for Research on Cancer)
International Air Transport Association (IATA)
International Maritime Dangerous Goods (IMDG)
NIOSH (National Institute for Occupational Safety and Health)
NTP (National Toxicology Program)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL (Permissible Exposure Limit)
Reportable Quantity (RQ)
Skin designation (S*)
STEL (Short Term Exposure Limit)
TLV® (Threshold Limit Value)
TWA (time-weighted average)

Revision Date 24-Sep-2015
Revision Note
No information available
Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet