SAFETY DATA SHEET

RAMUC°



Revision Date 07-Oct-2015 Version 1

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

1.1 Product identifier

Product name Ramuc Type EP Hi-Build Immersion Activator - Part B

Product code 912230000

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

Recommended UseRestrictions on use
Paint/Paint Related Material
No information available

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 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 3

2.2 Label elements

Signal Word

Danger

Hazard Statements

Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

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

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

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

Immediately call a POISON CENTER or doctor

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

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 cool

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

21.6527% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

<u>Substance</u> Not applicable **Mixture**

Chemical Name	CAS-No	Weight %
Calcium carbonate (Limestone)	1317-65-3	50 - 60
Polyamide Resin	68424-41-9	20 - 30
Xylene	1330-20-7	10 - 20
n-Butanol	71-36-3	5 - 10
Ethylbenzene	100-41-4	1 - 5
TRIETHYLENETETRAMINE	112-24-3	< 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 Show this safety data sheet to the doctor in attendance. When symptoms persist or in all

cases of doubt seek medical advice.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Call a physician or poison control center

immediately.

Skin contactCall a poison control center or doctor for treatment advice. Remove and wash contaminated

clothing before re-use. Wash off immediately with plenty of water for at least 15 minutes.

Inhalation Move victim to fresh air. Apply artificial respiration if victim is not breathing. Call a physician

or poison control center immediately.

Ingestion Call a physician or poison control center immediately. If swallowed, DO NOT induce

vomiting unless directed to do so by medical personnel. Gently wipe or rinse the inside of

the mouth with water. Never give anything by mouth to an unconscious person.

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 physicianThere is no specific antidote for effects from overexposure to this material. Treat

symptomatically.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use CO2, dry chemical, or foam. 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.

Unsuitable Extinguishing Media None.

5.2 Special hazards arising from the substance or mixture

Special Hazard

None known based on information supplied

Hazardous Combustion Products No information available.

Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

5.3 Advice for firefighters

Evacuate personnel to safe areas. 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. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thoroughly decontaminate all protective equipment after use. Use water spray to cool fire-exposed containers. 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

Stop leak if you can do it without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Take precautionary measures against static discharges. Avoid contact with skin, eyes and inhalation of vapors. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological information.

6.3 Methods and materials for containment and cleaning up

Methods for Containment Dike to collect large liquid spills. Prevent further leakage or spillage if safe to do so. Contain

and collect spillage with non-combustible absorbent material, (e.g. sand, earth,

diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Prevent material from entering surface waters, drains or sewers, and soil. Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800)

424-8802.

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. Use clean non-sparking tools to collect absorbed

material. Keep in suitable and closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Keep away from open flames, hot surfaces and sources of ignition. Take necessary action

to avoid static electricity discharge (which might cause ignition of organic vapors). Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Empty containers may retain product residue or vapor. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after

handling.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat and sources of ignition. Keep containers tightly closed in a cool,

well-ventilated place.

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
Calcium carbonate	-	TWA: 15 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	
(Limestone)		total dust	TWA: 3 mg/m ³			
1317-65-3		TWA: 5 mg/m ³	STEL: 20 mg/m ³			
		respirable fraction				
Xylene	STEL: 150 ppm	TWA: 100 ppm	TWA: 100 ppm	TWA: 100 ppm	TWA: 100 ppm	TWA: 100 ppm
1330-20-7	TWA: 100 ppm	TWA: 435 mg/m ³	STEL: 150 ppm	TWA: 434 mg/m ³	TWA: 434 mg/m ³	STEL: 150 ppm
				STEL: 150 ppm	STEL: 150 ppm	
				STEL: 651 mg/m ³	STEL: 651 mg/m ³	
n-Butanol	TWA: 20 ppm	TWA: 100 ppm	TWA: 15 ppm	TWA: 20 ppm	Ceiling: 50 ppm	TWA: 20 ppm
71-36-3		TWA: 300 mg/m ³	Ceiling: 30 ppm	TWA: 60 mg/m ³	Ceiling: 152 mg/m ³	
					Skin	

Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	TWA: 20 ppm	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 125 ppm STEL: 543 mg/m ³	TWA: 20 ppm
TRIETHYLENETETRA MINE 112-24-3	-	-		· · · · · · · · · · · · · · · · · · ·		TWA: 0.5 ppm TWA: 3 mg/m³ Skin
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/m ³ 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. Use adequate ventilation to

maintain airborne concentrations at levels below permissible or recommended occupational

exposure limits.

8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear chemical-resistant glasses and/or goggles and a face shield when eye and face

contact is possible due to handling and processing of material.

Skin and body protection Wear chemical resistant footwear and clothing such as gloves, an apron or a whole body

suit as appropriate.

Respiratory protection . NIOSH/MSHA approved respiratory protection should be worn if exposure is anticipated.

Hygiene measures See section 7 for more information

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

Appearance No information available

Color Clear Amber Odor Amine

No information available **Odor Threshold**

Property Values Remarks • Methods Not applicable

pН

Melting/freezing point No information available

Boiling point/boiling range 100 °C / 212 °F Flash Point 28 °C / 82 °F

Evaporation rate < 1

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 1.485

Water solubility No information available Solubility in other solvents No information available **Partition coefficient** No information available No information available **Autoignition temperature Decomposition temperature** No information available Viscosity, kinematic No information available Viscosity, dynamic No information available

Explosive properties No information available **Oxidizing Properties** No information available

9.2 Other information

Volatile organic compounds (VOC) 342 g/L

content

Density 12.38 lb/gal

10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Direct sources of heat.

10.5 Incompatible Materials

None known based on information supplied.

10.6 Hazardous Decomposition Products

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

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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 21.6527% of the mixture consists of ingredient(s) of unknown toxicity

 Oral LD50
 5,835.00 mg/kg

 Dermal LD50
 16,113.00 mg/kg

 LC50 (Vapor)
 59.87 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
n-Butanol 71-36-3	700 mg/kg (Rat)	= 3402 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Ethylbenzene 100-41-4	3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
TRIETHYLENETETRAMINE 112-24-3	2500 mg/kg (Rat)	= 550 mg/kg (Rabbit)	-
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

Ethylbenzene	-	Group 2B	-	
100-41-4				

Reproductive toxicity

Product Information

- No information available
- <u>Component Information</u>
 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

 $21.6527 \ \% \ of \ the \ mixture \ consists \ of \ components (s) \ of \ unknown \ hazards \ to \ the \ aquatic \ environment$

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Xylene	-	LC50: 96 h Pimephales promelas	EC50: 48 h water flea 3.82 mg/L
1330-20-7		23.53 - 29.97 mg/L static LC50: 96	LC50: 48 h Gammarus lacustris 0.6
		h Cyprinus carpio 780 mg/L	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	
n-Butanol	EC50: 96 h Desmodesmus	LC50: 96 h Pimephales promelas	EC50: 48 h Daphnia magna 1983
71-36-3	subspicatus 500 mg/L EC50: 72 h	1730 - 1910 mg/L static LC50: 96 h	mg/L EC50: 48 h Daphnia magna
	Desmodesmus subspicatus 500	Pimephales promelas 1740 mg/L	1897 - 2072 mg/L Static
	mg/L	flow-through LC50: 96 h Lepomis	
		macrochirus 100000 - 500000 μg/L	
		static LC50: 96 h Pimephales	
		promelas 1910000 µg/L static	
Ethylbenzene	EC50: 72 h Pseudokirchneriella	LC50: 96 h Oncorhynchus mykiss	EC50: 48 h Daphnia magna 1.8 -

100-41-4	subcapitata 4.6 mg/L EC50: 96 h	11.0 - 18.0 mg/L static LC50: 96 h	2.4 mg/L
	Pseudokirchneriella subcapitata 438		-
	mg/L EC50: 72 h	semi-static LC50: 96 h Pimephales	
	Pseudokirchneriella subcapitata 2.6	promelas 7.55 - 11 mg/L	
	- 11.3 mg/L static EC50: 96 h	flow-through LC50: 96 h Lepomis	
	Pseudokirchneriella subcapitata 1.7	macrochirus 32 mg/L static LC50:	
	- 7.6 mg/L static	96 h Pimephales promelas 9.1 -	
		15.6 mg/L static LC50: 96 h Poecilia	
		reticulata 9.6 mg/L static	
TRIETHYLENETETRAMINE	EC50: 72 h Desmodesmus	LC50: 96 h Poecilia reticulata 570	EC50: 48 h Daphnia magna 31.1
112-24-3	subspicatus 2.5 mg/L EC50: 72 h	mg/L semi-static LC50: 96 h	mg/L
	Pseudokirchneriella subcapitata 20	Pimephales promelas 495 mg/L	
	mg/L EC50: 96 h		
	Pseudokirchneriella subcapitata 3.7		
	mg/L		
Toluene	EC50: 96 h Pseudokirchneriella	LC50: 96 h Pimephales promelas	EC50: 48 h Daphnia magna 5.46 -
108-88-3	subcapitata 433 mg/L EC50: 72 h	15.22 - 19.05 mg/L flow-through	9.83 mg/L Static EC50: 48 h
	Pseudokirchneriella subcapitata	LC50: 96 h Pimephales promelas	Daphnia magna 11.5 mg/L
	12.5 mg/L static	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	

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
n-Butanol 71-36-3	0.785
Ethylbenzene 100-41-4	3.118
TRIETHYLENETETRAMINE 112-24-3	-1.4
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 ORM-D Limited quantity

DOT Quarts and gallons ship as limited quantity.

UN/ID No UN1263
Proper shipping name Paint
Hazard class 3
Packing Group III

MEX no data available

IMDG

Proper shipping name UN1263, Paint, 3, PG III

<u>IATA</u>

Proper shipping name UN1263, Paint, 3, PG III

15. Regulatory information

15.1 International Inventories

TSCA Complies DSL Complies

EINECS/ELINCS ENCS IECSC 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	1.0
1330-20-7	
n-Butanol	1.0
71-36-3	
Ethylbenzene	0.1
100-41-4	

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
Ethylbenzene - 100-41-4	Carcinogen
Toluene - 108-88-3	Developmental
	Female 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)

07-Oct-2015

PEL (Permissible Exposure Limit)

Reportable Quantity (RQ)

Skin designation (S*)

STEL (Short Term Exposure Limit)

TLV® (Threshold Limit Value)

TWA (time-weighted average)

Prepared By Kop-Coat, Inc.
Regulatory Affairs

Revision Date

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