SAFETY DATA SHEET
RMA Flux Remover Pen

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name RMA Flux Remover Pen

Product number MCC-RMAPEN

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Details of the supplier of the safety data sheet

Supplier MICROCARE LLC

Manufacturer
MICROCARE LLC
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: + 1 800 638 0125, +1 860-827-0626
Fax: +1 860-893-1930
techsupport@microcare.com

Emergency telephone number

Emergency telephone
CHEMTREC 1-800-424-9300 (within the U.S.)
+1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Repr. 2 - H361f STOT SE 3 - H336 STOT RE 2 - H373

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

Human health Splashes in the eyes may cause redness and irritation. Keep out of the reach of children. See Section 11 for additional information on health hazards.

Physicochemical The product is highly flammable. Vapors may form explosive mixtures with air.

Label elements

Hazard symbols

Signal word Danger

RMA Flux Remover Pen

Hazard statements

H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361f Suspected of damaging fertility.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P261 Avoid breathing vapor/ spray.
P271 Use only outdoors or in a well-ventilated area.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.

Supplemental label information

Safety data sheet available on request. For use in industrial installations only.

Contains

PROPAN-2-OL, HEXANE-norm, 1-METHOXY-2-PROPANOL

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

HEXAMETHYLDISILOXANE (Methyl siloxane) **30-60%**

CAS number: 107-46-0

M factor (Acute) = 1

Classification
Flam. Liq. 2 - H225
Aquatic Acute 1 - H400
Aquatic Chronic 2 - H411

PROPAN-2-OL **10-30%**

CAS number: 67-63-0

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H336

ETHANOL **10-30%**

CAS number: 64-17-5

Classification
Flam. Liq. 2 - H225

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HEXANE-norm	10-30%
CAS number: 110-54-3	

Classification
Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
Repr. 2 - H361f
STOT SE 3 - H336
STOT RE 2 - H373
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

1-METHOXY-2-PROPANOL	5-10%
CAS number: 107-98-2	

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336

The full text for all hazard statements is displayed in Section 16.

Composition comments TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

Composition

4. First-aid measures

Description of first aid measures

General information Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.

Skin Contact Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

RMA Flux Remover Pen

Suitable extinguishing media Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapors. Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3.

Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Never use water by itself on spillage; this will spread the spill and cause further contamination.

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. If leakage cannot be stopped, evacuate area. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

7. Handling and storage

Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

Reference to other sections. Store away from incompatible materials (see Section 10).

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

PROPAN-2-OL

RMA Flux Remover Pen

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³
Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³
A4

ETHANOL

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m³
A3
Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

HEXANE-norm

Long-term exposure limit (8-hour TWA): OSHA 500 ppm 1800 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 176 mg/m³
Sk

1-METHOXY-2-PROPANOL

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 184 mg/m³
Short-term exposure limit (15-minute): ACGIH 100 ppm 369 mg/m³
A4

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
Sk = Danger of cutaneous absorption.
A4 = Not Classifiable as a Human Carcinogen.

ETHANOL (CAS: 64-17-5)

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Protective equipment

Appropriate engineering controls Provide adequate general and local exhaust ventilation.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygiene measures Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes wet or contaminated. When using do not eat, drink or smoke.

Respiratory protection No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and chemical properties

Information on basic physical and chemical properties

RMA Flux Remover Pen

Appearance	Liquid.
Color	Clear liquid. Colorless.
Odor	Slight. Ether.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	0.6°C/33.1°F Tag closed cup.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	No information available.
Other flammability	The product is highly flammable.
Vapor pressure	No information available.
Vapor density	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Global Warming Potential (GWP)	
Refractive index	No information available.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	100%
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	This product contains a maximum VOC content of 60.4 %.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.

RMA Flux Remover Pen

Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Strong oxidizing agents. Strong alkalis. Strong mineral acids.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Vapors/gases/fumes of: Formaldehyde

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.
Inhalation	May cause respiratory system irritation. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin Contact	Product has a defatting effect on skin. May cause skin irritation/eczema.
Eye contact	Irritating to eyes.

Toxicological information on ingredients.

HEXAMETHYLDISILOXANE (Methyl siloxane)

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	106.0
Species	Rat

PROPAN-2-OL

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	16,000.0
ATE inhalation (vapours mg/l)	16,000.0

Carcinogenicity

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
NTP carcinogenicity	Not listed.
OSHA Carcinogenicity	Not listed.

ETHANOL

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	20,000.0

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ATE inhalation (vapours mg/l)	20,000.0

12. Ecological information

Ecotoxicity There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

HEXAMETHYLDISILOXANE (Methyl siloxane)

Toxicity	Very toxic to aquatic organisms.
Acute aquatic toxicity	
LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.46 mg/l mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 72 hours: 0.79 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 96 hours: > 0.93 mg/l, Selenastrum capricornutum

PROPAN-2-OL

Acute aquatic toxicity	
Acute toxicity - fish	LC_{50}, 96 hours: 9,640 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 5102 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: >2,000 mg/l, Algae

ETHANOL

Acute aquatic toxicity	
Acute toxicity - fish	LC_{50}, 96 hours: >10,000 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 7,800 mg/l, Daphnia magna
Acute toxicity - aquatic plants	, 96 hours: 1000 mg/l, Freshwater algae

Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

ETHANOL

Persistence and degradability	The product is expected to be biodegradable.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

RMA Flux Remover Pen

Partition coefficient No information available.

Ecological information on ingredients.

PROPAN-2-OL

Partition coefficient : 0.05

ETHANOL

Bio-Accumulative Potential Bioaccumulation is unlikely.

Partition coefficient No information available.

Mobility in soil

Mobility The product contains volatile substances which may spread in the atmosphere.

Ecological information on ingredients.

ETHANOL

Mobility The product is soluble in water.

Other adverse effects

Other adverse effects Not available.

13. Disposal considerations

Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General As supplied, this product is consigned under the Limited Quantities provisions.

UN Number

UN No. (IMDG) 1993

UN No. (ICAO) 1993

UN proper shipping name

Proper shipping name (TDG) UN1993, FLAMMABLE LIQUID, N.O.S.(Hexamethyldisiloxane), 3, PGII, LIMITED QUANTITY

Proper shipping name (IMDG) UN1993, FLAMMABLE LIQUID, N.O.S.(Hexamethyldisiloxane), 3, PGII, LIMITED QUANTITY

Proper shipping name (ICAO) UN1993, FLAMMABLE LIQUID, N.O.S.(Hexamethyldisiloxane), 3, PGII, LIMITED QUANTITY

Proper shipping name (DOT) UN1993, FLAMMABLE LIQUID, N.O.S.(Hexamethyldisiloxane), 3, PGII, LIMITED QUANTITY

Transport hazard class(es)

IMDG Class 3

ICAO class/division 3

Environmental hazards

RMA Flux Remover Pen

Environmentally Hazardous Substance

Special precautions for user

EmS F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable. No information required.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Not listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

HEXANE-norm
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

SARA 313 Emission Reporting

HEXANE-norm
1.0 %

CAA Accidental Release Prevention
Not listed.

SARA (311/312) Hazard Categories
Fire

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Reproductive harm - www.p65warnings.ca.gov

California Air Toxics "Hot Spots" (A-I)

PROPAN-2-OL
Present.

HEXANE-norm
Present.

1-METHOXY-2-PROPANOL
Present.

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California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances

PROPAN-2-OL
Present.

1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

Massachusetts "Right To Know" List

PROPAN-2-OL
Present.

HEXANE-norm
Present.

1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

Rhode Island "Right To Know" List

PROPAN-2-OL
Present.

HEXANE-norm
Present.

1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

Minnesota "Right To Know" List

PROPAN-2-OL
Present.

HEXANE-norm
Present.

1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

New Jersey "Right To Know" List

PROPAN-2-OL
Present.

HEXANE-norm
Present.

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1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

Pennsylvania "Right To Know" List

PROPAN-2-OL
Present.

HEXANE-norm
Present.

1-METHOXY-2-PROPANOL
Present.

ETHANOL
Present.

Inventories

Canada - DSL/NDSL
DSL

US - TSCA
Yes

US - TSCA 12(b) Export Notification
Not listed.

16. Other information

Revision date	11/12/2020
Revision	46
Supersedes date	10/17/2018
SDS No.	BULK - RMAPEN
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapor. H226 Flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H361f Suspected of damaging fertility. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.