

Safety Data Sheet (SDS)

www.chipquik.com

To comply with European CLP Regulation 1272/2008, US 29CFR 1910.1200 OSHA's Hazard Communication Standard, and Australian NOHSC: 1008 [2004] and ADG Code 7.4

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Chip Quik Flux Remover Series: CQNRM, CQNTRM
SYNONYMS:
PART NUMBERS: CQNRM, CQNRM-0.5, CQNRM-1.0, CQNTRM, CQNTRM-0.5, CQNTRM-1.0

MANUFACTURER: Chip Quik Inc.
ADDRESS: 931-3909 Witmer Rd., Niagara Falls, NY 14305 (USA)
 3rd Floor, 207 Regent Street, London W1B 3HH (UK and EU)
 5-1480 Sandhill Dr., Ancaster, ON L9G 4V5 (Canada)
 42A Crimea Street, C/O A03886, Parramatta, NSW, 2150 (Australia)

PHONE: (508) 477-2264
EMERGENCY PHONE: (800) 424-9300 (USA and Canada 24/7 CHEMTREC)
 +44 20 3868 7152 (UK and EU 24/7)
 +61 2 8607 7057 (Australia 24/7)

REVISION DATE: 2018/7/19
REVISION NUMBER: 3.3
REVISED BY: Chip Quik Product Safety

PRODUCT USE: Removing flux from circuit boards. This product is for industrial use only.

2. HAZARD IDENTIFICATION

Classified in accordance with European CLP Regulation 1272/2008

Aquatic Chronic 4

CHEMICAL NAME: NA
CHEMICAL FAMILY: Mixture
CHEMICAL FORMULA: Proprietary

ROUTES OF ENTRY: Inhalation, Ingestion, Skin/Eye Contact

TARGET ORGANS: NA

GHS/CLP:

Signal Word: NA

GHS/CLP LABEL ELEMENTS:

Hazard statement(s)
 H413 May cause long lasting harmful effects to aquatic life.

Precautionary statement(s)
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause moderate irritation. Do not allow material to come in contact with eyes.
SKIN CONTACT: May cause moderate skin irritation.
INHALATION: May cause irritation to the respiratory tract.
INGESTION: Harmful if swallowed. May cause irritation to the mouth, throat, and stomach. May cause abdominal discomfort, nausea, vomiting, and/or diarrhea.
CHRONIC: Not established.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Diseases of the blood-forming organs, kidneys, nervous and possibly reproductive systems. Occupational Asthma.

SECTION 2 NOTES:

Chip Quik Inc. does not recommend, manufacture, market, or endorse any of its products for human consumption.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Classified in accordance with European CLP Regulation 1272/2008

| Hazardous Ingredients ⁽¹⁾ | C.A.S. Number | Weight Percent | OSHA PEL | ACGIH TLV TWA | LD 50 Ingested | LD 50 Inhaled |
|--------------------------------------|---------------|----------------|----------|---------------|----------------|---------------|
|--------------------------------------|---------------|----------------|----------|---------------|----------------|---------------|

| | | | mg/m ³ | mg/m ³ | g/Kg | g/m ³ |
|--|-------------|-----|-------------------|-------------------|------|------------------|
| 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethyl-hexane | 297730-93-9 | >90 | NE | NE | NE | NE |
| Polypropylene glycol monobutyl ether | 9003-13-8 | <1 | NE | NE | NE | NE |
| Tripropylene glycol | 24800-44-0 | <1 | NE | NE | NE | NE |
| Dipropylene glycol n-butylether | 29911-28-2 | <1 | NE | NE | NE | NE |

SECTION 3 NOTES:

(1) Per 29 CFR 1910 the mixture has not been tested as a whole. All hazardous components, which comprise 1% of the mixture (0.1% carcinogenic), are listed. Percentages of individual components are not listed as this information is considered a trade secret.

4. FIRST-AID MEASURES

EYES: Flush with plenty of water, contact a physician. If contact lenses can be removed easily, flush eyes without contact lenses.

SKIN: Wash affected area with plenty of warm, soapy water. If irritation persists, seek medical attention.

INGESTION: Call a physician or Poison Control Center immediately. Do not induce vomiting.

INHALATION: Remove to fresh air. If not breathing, seek immediate medical attention.

5. FIREFIGHTING MEASURES

EXTINGUISHING MEDIA: Dry chemical, foam

SPECIAL FIRE FIGHTING PROCEDURES: Do not use water. Use NIOSH-approved self-contained Breathing Apparatus and full protective clothing if involved in a fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: This product does not present any unusual fire and explosion hazards.

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: If material spills or leaks use a spatula to collect and place it in a plastic or glass jar. Remove traces of residue using cloth rags or paper towels moistened with Isopropyl Alcohol. Exposure to spilled material may be irritating. Follow on-site personal protective equipment recommendations.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Collect spillage.

SECTION 6 NOTES:

See Sections 2, 4, and 7 for additional information.

7. HANDLING AND STORAGE

HANDLING/STORAGE: Keep containers tightly closed when not in use. Use care to avoid spills. Avoid inhalation of fumes or dust. Avoid contact with eyes, skin, and clothing. Store in a closed corrosive resistant container, with corrosive resistant liner, in cool dry place. Wear appropriate personal protective equipment when working with or handling. Always wash hands thoroughly after handling this product. Dispose of following Federal, State/Provincial, and Local regulations.

OTHER PRECAUTIONS: Empty containers may retain product residues in vapor, liquid, and/or solid form. All labeled hazard precautions should be observed.

WORK HYGIENIC PRACTICES: Cosmetics/Food/Drink/Tobacco should not be consumed or used in work areas. Always wash hands after handling material and before applying or using cosmetics/food/drink/tobacco.

SECTION 7 NOTES:

For industrial use only.

Keep out of reach of children.

Not for internal consumption.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit Values:

3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethylhexane
MEL: 100 ppm TWA.

Dipropylene glycol nbutylether
MEL: 10 mg/m³ TWA.

Also see section 3.

ENGINEERING CONTROLS: Use only with production equipment designed for use with flux remover.

VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLVs.

RESPIRATORY PROTECTION: Use with adequate ventilation.

EYE PROTECTION: Use with appropriate safety glasses.

SKIN PROTECTION: Protective gloves.

PROTECTIVE CLOTHING OR EQUIPMENT: Work clothes should be worn and laundered in accordance with current OSHA Lead (Pb) standards.

WORK HYGIENIC PRACTICES: Cosmetics/Food/Drink/Tobacco should not be consumed or used in areas where solder products may be used. Always wash hands after handling soldering products and before applying or using cosmetics/food/drink/tobacco.

OTHER: Maintain eye wash stations in work areas. Avoid the use of contact lenses in high fume areas. Clean protective equipment regularly. Clean up spills immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--------------|
| APPEARANCE: | Clear liquid |
| ODOR: | Odorless |
| ODOR THRESHOLD: | NE |
| pH as SUPPLIED: | N/A |
| MELTING POINT: | NE |
| FREEZING POINT: | NE |
| INITIAL BOILING POINT: | NE |
| BOILING RANGE: | NE |
| FLASH POINT: | NE |
| EVAPORATION RATE: | NE |
| FLAMMABILITY (solid): | NE |
| UPPER/LOWER FLAMMABILITY: | NE |
| UPPER/LOWER EXPLOSIVE LIMITS: | NE |
| VAPOR PRESSURE (mmHg): | N/A |
| VAPOR DENSITY (AIR = 1): | N/A |
| RELATIVE DENSITY: | NE |
| SOLUBILITY IN WATER: | Partially |
| PARTITION COEFFICIENT (n-octanol/water): | NE |
| AUTOIGNITION TEMPERATURE: | NE |
| DECOMPOSITION TEMPERATURE: | NE |
| VISCOSITY: | N/A |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| STABILITY: | Stable |
| CONDITIONS TO AVOID (STABILITY): | NE |
| INCOMPATIBILITY (MATERIAL TO AVOID): | Oxidizing materials, acids, hydrogen peroxide, bases |
| HAZARDOUS DECOMPOSITION/BY-PRODUCTS: | Harmful organic fumes and toxic oxide fumes may form at elevated temperatures. |
| POSSIBILITY OF HAZARDOUS REACTIONS: | NE |

11. TOXICOLOGICAL INFORMATION

INHALATION:

This product does not present a risk at ambient temperatures. The flux remover fumes evolved during soldering will irritate the nose, throat and lungs. Repeated or prolonged exposure to flux remover fumes may cause an allergic affect which may lead to occupational asthma.

SKIN:

Contact with flux remover fumes and flux remover residues may cause irritation and sensitization.

EYES:

Flux remover fumes may cause irritation.

| | |
|---|---------------|
| ACUTE TOXICITY: | Not available |
| SKIN CORRISSION/IRRITATION: | Not available |
| SERIOUS EYE DAMAGE/IRRITATION: | Not available |
| RESPIRATORY OR SKIN SENSITIZATION: | NE |
| GERM CELL MUTAGENICITY: | Not available |
| CARCINOGENICITY: | Not available |
| REPRODUCTIVE TOXICITY: | Not available |
| STOT-SINGLE EXPOSURE: | Not available |
| STOT-REPEATED EXPOSURE: | NE |
| ASPIRATION HAZARD: | NE |

12. ECOLOGICAL INFORMATION

| | |
|---|----------------|
| TOXICITY: | Not available |
| PERSISTENCE AND DEGRADIBILITY: | NE |
| BIOACCUMULATIVE POTENTIAL: | Not available |
| MOBILITY IN SOIL: | NE |
| RESULT OF PBT and vPvB ASSESSMENT: | Not applicable |
| OTHER ADVERSE EFFECTS: | NE |

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Scrap and waste should be recycled or stored in a dry, sealed container for later disposal. Disposal must be in accordance with Federal, State/Provincial, and Local Regulations.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

| | |
|---------------------------------|----------------|
| UN Number: | Not available |
| UN Proper Shipping Name: | Not available |
| Packaging Group: | Not applicable |
| Environmental Hazards: | None |

TRANSPORT HAZARD CLASSES:

| | |
|---|---------------|
| US DOT Hazardous Material Classification: | Non-Hazardous |
| Water Transportation: | Non-Hazardous |
| IATA Hazardous Material Classification: | Non-Hazardous |
| ADR Road Regulations | Not regulated |
| IMDG Sea Regulations | Not regulated |
| ADG Land Transportation | Not regulated |

15. REGULATORY INFORMATION

All ingredients used to manufacture this product are listed on the EPA TSCA Inventory. Finished product is not listed on the EPA TSCA Inventory.

| | |
|-----------------------------------|---------------|
| U.S. FEDERAL REGULATIONS: | Not regulated |
| STATE REGULATIONS: | Not regulated |
| INTERNATIONAL REGULATIONS: | Not regulated |
| AUSTRALIAN REGULATIONS: | Not regulated |

16. OTHER INFORMATION

LEGEND:

| | |
|-----------------------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADG | Australian Dangerous Goods Code |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| AICS | Australian Inventory of Chemical Substances |
| BCF | Bioconcentration factor |
| C.A.S. | Chemical Abstract Service |
| CLP | Classification, Labeling and Packaging |
| DOT | Department of Transportation |
| EC | Effective Concentration |
| EPA | Environmental Protection Agency |
| GHS | Global Harmonized System |
| HMIS | Hazardous Material Identification System |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods Code |
| LC | Lethal Concentration |
| LD | Lethal Dose |
| NA | Not available |
| NE | Not established |
| NIOSH | National Institute for Occupational Safety & Health |
| NOEC | No observed effective concentration |
| NOHSC | National Occupational Health and Safety Commission (Australia) |
| NTP | National Toxicology Program |
| OSHA | Occupational Safety and Health Administration |
| PEL | Permissible Exposure Limit |
| P_{ow} | Octanol water partition coefficient |
| SDS | Safety Data Sheet |
| STEL | Short-Term Exposure Limit |
| STOT | Specific target organ toxicity |
| TLV | Threshold Limit Value |
| TSCA | Toxic Substance Control Act |
| TWA: | Time Weighted Average |
| US DOT: | United States Department of Transportation |

PREPARATION INFORMATION:

This update supersedes all previously released documents.

DISCLAIMER:

The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to Chip Quik at the time of issue. No warranty, guarantee, or representation is made by Chip Quik nor does Chip Quik assume any responsibility in connection there within; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

