

October 1, 2009

MATERIAL SAFETY DATA SHEET

RCD Corporation®
2850 Dillard Road
Eustis, FL 32726

Emergency: 800-535-5053

Information: 352-589-0099

1. PRODUCT IDENTIFICATION

Common Name: **RCD Corporation® #34 Coil & Fin Cleaner®** CAS No. Mixture

Hazardous Materials Identification System: (HMIS RATING) Health-3 Flammability-2 Reactivity-0
Hazard Ranking: 0-Minimal 1-Slight 2-Moderate 3-Serious 4-Severe

2. HAZARDS IDENTIFICATION

Emergency Overview DANGER – CORROSIVE
Contents under pressure. Containers may explode when heated.

Potential short term health effects
Route of Exposure Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Eyes May cause chemical burns. May cause blindness.
Skin May cause chemical burns. Harmful contact may not cause immediate pain. May be absorbed through the skin.

NIOSH – Pocket Guide – Skin Notations
Ethylene glycol monobutyl ether 111-76-2 Potential for dermal absorption
Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness)
Ingestion Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

Target organs Blood, Eyes, Kidney, Liver, Respiratory system, Skin.
Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and Symptoms Symptoms may include redness, oedema, drying, defatting and cracking of the skin.
The product causes burns of eyes, skin, and mucous membranes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s)</u>	<u>CAS NO.</u>	<u>Percent</u>
Tetrasodium ethylenediamine tetraacetate	64-02-8	1 – 5
Propane	74-98-6	1 – 5
Ethylene glycol monobutyl ether	111-76-2	1 – 5
Diethylene glycol monoethyl ether	111-90-0	1 – 5
Butane	106-97-8	1 – 5

4. FIRST AID MEASURES

First aid procedures

Eye contact Immediately flush eyes with cool water. Remove contact lenses, if applicable and continue flushing for 15 minutes. Obtain medical attention immediately.

Skin contact Immediately flush with water. Wash skin with soap & water. Obtain medical attention if irritation persists.

Inhalation If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.

Ingestion Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

General Advice Do not puncture or incinerate container. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the materials(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of the reach of children.

5. FIRE-FIGHTING MEASURES

Flammable properties Not flammable by WHMIS criteria. Containers may explode when heated.

Extinguishing Media
Suitable extinguishing media Dry chemical. Foam. Fog.
Unsuitable extinguishing media Not available

Protection of firefighters
Specific hazards arising from the chemical Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Cool containers with flooding quantities of water until well after fire is out.
Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products May include and are not limited to: Oxides of carbon

Explosion data
Sensitivity to mechanical impact Not available
Sensitivity to static discharge Not available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for Cleaning up Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

7. HANDLING AND STORAGE

Handling Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.

Storage Keep out of the reach of children. Do not store at temperatures above 49° C (120.2° F). Keep away from heat, open flames, or other sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Ingredient(s)	Exposure limits
Butane	ACGIH-TLV TWA: 1000 ppm
Diethylene glycol monoethyl ether	ACGIH-TLV TWA: 25 ppm
Ethylene glycol monobutyl ether	ACGIH-TLV TWA: 20 ppm
Propane	ACGIH-TLV TWA: 1000 ppm
Tetrasodium ethylenediamine tetraacetate	ACGIH-TLV Not established

Engineering controls

General ventilation normally adequate.

Personal protective equipment

Eye/Face protection	Wear safety glasses with side shields
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene consideration	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Compressed liquefied gas	Color	Hazy / Colorless
Form	Spray	Odor	Lemon. Perfume
Odor threshold	Not available	Physical state	Gas
pH	12.23	Freezing point	Not available
Boiling Point:	97.8°C (208.04°F)	Flash Point	-104.44° C (-156° F) (Propellant)
Evaporation Rate	Not available	Flammability	5.84 kJ/g
Flammable Limits in Air, lower, % by Volume	Not available	Flammable Limits in Air, Upper, % by Volume	Not available
Vapor Pressure	419 - 487 kPa	Vapor Density	Not available
Specific Gravity	1.0087 (Concentrate)	Octanol/water coefficient	Not available
Solubility (H2O)	Not Available	Auto-ignition temperature	Not available
VOC (Weight %)	Not available	Viscosity	Not available
Percent volatile	Not available		

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical stability Stable under recommended storage conditions.

Conditions to avoid Do not mix with other chemicals. Reacts violently with acids. This product may react with oxidizing agents. Aerosol containers are unstable at temperatures above 49° C (120.2° F).

Incompatible materials Acids. Oxidizing agents.

Hazardous Decomposition Products May include and are not limited to: Oxides of carbon.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Component analysis – LC 50

Ingredient(s)	LC50
Butane	658 mg/l/4h rat
Diethylene glycol monoethyl ether	5240.0001 mg/l/4h rat
Ethylene glycol monobutyl ether	2.21 mg/l/4h rat
Propane	658 mg/l/4h rat
Tetrasodium ethylenediamine tetraacetate	Not available

Component analysis – Oral LD50

Ingredient(s)	LD50
Butane	Not available
Diethylene glycol monoethyl ether	5500 mg/kg rat
Ethylene glycol monobutyl ether	470 mg/kg rat; 320 mg/kg rabbit
Propane	Not available
Tetrasodium ethylenediamine tetraacetate	1658 mg/kg rat

Effects of acute exposure

Eye	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. Harmful contact may not cause immediate pain. May be absorbed through the skin.

NIOSH – Pocket Guide – Skin Notations

Ethylene glycol monobutyl ether	111-76-2	Potential for dermal absorption
Inhalation		Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness)

Ingestion	Nor a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.
ACGIH – Threshold Limit Values – Carcinogens	
Ethylene glycol monobutyl ether	111-76-2 A3 – Confirmed animal carcinogen with unknown relevance to humans
IARC – Group 3 (not classified)	
Ethylene Glycol monobutyl ether	111-76-2 Monograph 88 (2006)
Mutagenicity	Non-hazardous by WHMIS criteria
Reproductive effects	Non-hazardous by WHMIS criteria
Teratogenicity	Non-hazardous by WHMIS criteria

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Components of this product have been identified as having potential environmental concerns.

Ecotoxicity – Freshwater Algae Data

Tetrasodium ethylenediamine tetraacetate 64-02-8 72 Hr EC 50 Scenedesmus subspicatus: 1.01 mg/L

Ecotoxicity – Freshwater Fish Species Data

Diethylene glycol monoethyl ether 111-90-0 96 Hr. LC50 Oncorhynchus mykiss: 13420 mg/L; 96 Hr LC50 Pimephales promelas: 26400 mg/L (flow-through); 96 Hr LC50 Lepomis macrochirus: 10000 mg/L (static); 96 Hr LC50 Salmo gairdneri: 13400 mg/L (flow-through)

Ethylene glycol monobutyl ether 111-76-2 96Hr LC50 Lepomis macrochirus: 1490 mg/L (static)

Tetrasodium ethylenediamine tetraacetate 64-02-8 96 Hr LC50 Lepomis macrochirus: 41 mg/L (static); 96 Hr LC50 Pimephales promelas: 59.8 mg/L (static)

Ecotoxicity – Water Flea Data

Diethylene glycol monoethyl ether 111-90-0 48 Hr EC50 water flea: 4026 mg/L; 48 Hr LC50 Daphnia magna: 3940-4670 mg/L

Ethylene glycol monobutyl ether 111-76-2 24 Hr. EC50 water flea: 1720 mg/L; 24 Hr LC50 Daphnia magna : 1698-1940 mg/L

Tetrasodium ethylenediamine tetraacetate 64-02-8 24 Hr EC50 Daphnia magna: 610 mg/L

Environmental effects

Not available

Aquatic toxicity

Not available

Persistence and degradability

Not available

Bioaccumulation/accumulation

Not available

Partition coefficient

Not available

Mobility in environmental media

Not available

Chemical fate information

Not available

13. DISPOSAL CONSIDERATIONS

Waste Codes

Not available

Disposal instructions

Dispose in accordance with all applicable regulations.

Waste from residues/unused products

Not available

Contaminated packaging

Not available

14. TRANSPORTATION AND REGULATORY INFORMATION

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

Proper Shipping name

AEROSOLS, non-flammable, containing substances in Class 8, packing group III

Hazard Class

2.2 (8)

UN number

1950

Additional Information:

Special provisions

80

Packaging exceptions

<1L – Consumer Commodity.



15. REGULATORY INFORMATION

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada – WHMIS – Ingredient Disclosure List:

Butane	106-97-8	1%
Diethylene glycol monoethyl ether	111-90-0	1%
Ethylene glycol monobutyl ether	111-76-2	1%
WHMIS classification	Class A – Compressed Gas, Class E – Corrosive Material	
WHMIS status	Controlled	
WHMIS labeling		



Inventory Status

Country(s) or region

Canada

Canada

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

Inventory Name

Domestic Substances List (DSL)

Non-Domestic Substances List (NDSL)

On Inventory (Yes/No)*

No

No

16. OTHER INFORMATION

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy himself that they are suitable and complete for his particular use. It is also the user's responsibility to make certain that he is relying upon the most recent, updated, information and recommendations available.

Effective date

23-May-2008

Expiry date

15-May-2011