

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number CP031RICMAR
Product name ZAP POWER CLEANER
Effective date 03-Jan-2012
Company information RICMAR INDUSTRIES
889 N LARCH AVE
ELMHURST, IL 60126 United States
Company phone General Assistance 800-323-0779
Emergency telephone US 1-866-836-8855
Version # 17
Supersedes date 16-Dec-2010

2. Hazards Identification

Emergency overview Aerosol. CONTENTS UNDER PRESSURE.
Potential health effects
Routes of exposure Ingestion.
Eyes Health injuries are not known or expected under normal use.
Skin Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal.
Ingestion Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.
Target organs 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.
Chronic effects Central nervous system. Lungs.
Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin). May be harmful if absorbed through skin. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. May cause delayed lung injury.
Signs and symptoms Discomfort in the chest. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Coughing. Defatting of the skin. Skin irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
2-Butoxyethanol	111-76-2	3 - 5
n-Butane	106-97-8	1 - 3
Non-hazardous and other components below reportable levels		> 90

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact Immediately take off all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops and persists.
Inhalation If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Call a physician if symptoms develop or persist.
Ingestion If ingestion of a large amount does occur, call a poison control center immediately.

5. Fire Fighting Measures

Flammable properties	Heat may cause the containers to explode. Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Protection of firefighters	
Protective equipment and precautions for firefighters	In case of fire and/or explosion do not breathe fumes. Containers should be cooled with water to prevent vapor pressure build up. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

6. Accidental Release Measures

Methods for containment	Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk.
Methods for cleaning up	Should not be released into the environment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

7. Handling and Storage

Handling	Pressurized container: Do not pierce or burn, even after use. Do not smoke while using or until sprayed surface is thoroughly dry. Do not use if spray button is missing or defective. Do not re-use empty containers. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.
Storage	Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Store in cool place. Store in a well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Level 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
2-Butoxyethanol	111-76-2	20 ppm	Not established	Not established
n-Butane	106-97-8	1000 ppm	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
2-Butoxyethanol	111-76-2	50 ppm	Not established	Not established

Personal protective equipment

Skin protection	Wear appropriate chemical resistant clothing.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

9. Physical & Chemical Properties

Appearance	Compressed liquefied gas.
Boiling point	212 °F (100 °C) estimated
Color	Pale yellow
Density	0.9782 g/cm ³ estimated
Flammability (HOC)	3.4413 kJ/g estimated
Flash back	No

Flash point	-156 °F (-104.4 °C) Propellant
Form	Aerosol.
Freezing point	Not available
Odor	Pleasant.
pH	11.8 - 12.8
Physical state	Liquid.
Pressure	40 - 75 psig @70F
Solubility	Partially
Specific gravity	0.9783 estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions. Risk of ignition.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological Information

Acute effects	Acute LD50: 4536 mg/kg estimated, Rat, Dermal
Component analysis - LD50	
Toxicology Data - Selected LD50s and LC50s	
2-Butoxyethanol	111-76-2 Inhalation LC50 Rat 2.21 mg/L 4 h, Inhalation LC50 Rat 450 ppm 4 h, Oral LD50 Rat 470 mg/kg, Dermal LD50 Rat 2270 mg/kg, Dermal LD50 Rabbit 220 mg/kg
n-Butane	106-97-8 Inhalation LC50 Rat 658 mg/L 4 h
Sensitization	Not expected to be hazardous by OSHA criteria.
Teratogenicity	Not expected to be hazardous by OSHA criteria.

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.
	LC50 1172 mg/L, Fish, 96.00 Hours, EC50 17672 mg/L, Daphnia, 48.00 Hours, IC50 88.34 mg/L, Algae, 72.00 Hours,

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 F D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel]
Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container to hazardous or special waste collection point. If discarded, this product is considered a RCRA ignitable waste, D001.

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name	Aerosols
Hazard class	2.1
UN number	UN1950
Additional information:	
Special provisions	153, N82
Packaging exceptions	LTD QTY
Packaging non bulk	None
Packaging bulk	None



IMDG**Basic shipping requirements:**

Proper shipping name AEROSOLS
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Item 5F
Labels required None
Transport Category 2

**IATA****Basic shipping requirements:**

Proper shipping name Aerosols, flammable
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Labels required 2.1

**15. Regulatory Information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

2-Butoxyethanol	111-76-2	1.0 % de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR', where n = 1, 2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230)
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical **Yes**

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance No
Section 311 hazardous chemical Yes
Hazard categories (311/312)
 Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

State regulations**U.S. - Pennsylvania - RTK (Right to Know) List**

2-Butoxyethanol	111-76-2	Present
n-Butane	106-97-8	Present

16. Other Information

Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 1 Flammability: 2 Physical hazard: 0 Personal protection:
Disclaimer	The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.
MSDS sections updated	Product and Company Identification: Product Review Hazards Identification: Main symptoms Transport Information: Product Shipping Name/Packing Group
Prepared by	Regulatory Compliance