

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 237
Product name MARK OFF GEL VANDAL MARK REMOVER
Effective date 12-Mar-2008
Company information CSI PRODUCTS, INC.
ADDISON, IL 60101 United States
Company phone General Assistance 630-543-7600
Emergency telephone US 800-424-9300
Emergency telephone outside US 703-527-3887
Version # 1.0

2. Hazards Identification

Emergency overview FLAMMABLE
VAPOR HARMFUL.
CONTENTS UNDER PRESSURE.
Aerosol. Pressurized container may explode when exposed to heat or flame.

Harmful in contact with eyes. Irritating to skin. Irritating to respiratory system. Prolonged exposure may cause chronic effects.

OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

Routes of exposure Skin contact. Ingestion. Inhalation.

Eyes Contact may irritate or burn eyes. Eye contact may result in corneal injury.

Skin This product may be harmful if it is absorbed through the skin. Irritating to skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Irritating to respiratory system. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. Harmful if swallowed. May cause delayed lung damage.

Target organs Kidney.

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 Blood. Central nervous system. Liver. Respiratory system.
Unconsciousness. Conjunctiva. Liver injury may occur. Kidney injury may occur. 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 damage.

Signs and symptoms Discomfort in the chest. Corneal damage. Narcosis. Cyanosis. Liver enlargement. Jaundice. Conjunctivitis. Defatting of the skin. Irritation.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Toluene	108-88-3	20 - 30
Propane	74-98-6	10 - 15
n-Butane	106-97-8	8 - 10
Acetone	67-64-1	5 - 8
2-Butoxyethanol	111-76-2	3 - 5
Diethylene Glycol Monobutyl Ether	112-34-5	3 - 5
Non-hazardous and other components below reportable levels		20 - 40

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. Get medical attention immediately.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off with warm water and soap. Get medical attention if irritation develops or persists.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to physician

Symptoms may be delayed.

General advice

Call a physician if symptoms develop or persist.

5. Fire Fighting Measures

Flammable properties	Containers may explode when heated. Vapor or gas may spread to distant ignition sources and flash back.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Protection of firefighters	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Protective equipment and precautions for firefighters	In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Containers should be cooled with water to prevent vapor pressure build up. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
Specific hazards	Fire may produce irritating, corrosive and/or toxic gases.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.
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. Move the cylinder to a safe and open area if the leak is irreparable.
Methods for cleaning up	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling

Pressurized container: Do not pierce or burn, even after use. Do not handle or store near an open flame, heat or other sources of ignition. Do not use if spray button is missing or defective. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not breathe gas/fumes/vapor/spray. Wash hands after handling and before eating. Avoid prolonged exposure.

Storage

Level 2 Aerosol.

Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Keep away from heat, sparks, and flame. Avoid exposure to long periods of sunlight. Store in cool place. Keep in an area equipped with sprinklers. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components	CAS #	TWA	STEL	Ceiling
Toluene	108-88-3	50 ppm	Not established	Not established
Propane	74-98-6	1000 ppm	Not established	Not established
n-Butane	106-97-8	1000 ppm	Not established	Not established
Acetone	67-64-1	500 ppm	750 ppm	Not established
2-Butoxyethanol	111-76-2	20 ppm	Not established	Not established
Diethylene Glycol Monobutyl Ether	112-34-5	20 ppm	Not established	Not established

OSHA

Components	CAS #	TWA	STEL	Ceiling
Toluene	108-88-3	200 ppm	Not established	300 ppm
Propane	74-98-6	1000 ppm	Not established	Not established
Acetone	67-64-1	1000 ppm	Not established	Not established
2-Butoxyethanol	111-76-2	50 ppm	Not established	Not established
Diethylene Glycol Monobutyl Ether	112-34-5	100 ppm	Not established	Not established

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection

Wear chemical goggles.

Skin protection

Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations

When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Wash hands after handling and before eating. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance

Compressed liquefied gas.

Color

Tan.

Odor

Solvent.

Physical state

Liquid.

Form

Aerosol.

Flammability (HOC)

20.2031 kJ/g estimated

Flash back

No

Pressure

47 - 57 psig @ 70F

Solubility

Partially

Flash point

-156 °F (-104.4 °C) estimated

Boiling point

165.2 °F (73.9 °C) estimated

Specific gravity 0.812 estimated
pH 12.42 - 13.42

10. Chemical Stability & Reactivity Information

Chemical stability Risk of ignition.
Conditions to avoid Heat, flames and sparks.
Hazardous decomposition products May include oxides of oxides of carbon.

11. Toxicological Information

Acute effects Acute LD50: 4002 mg/kg estimated, Rat, Dermal
Acute LC50: 23 mg/l/4h estimated, Rat, Inhalation

Sensitization Not expected to be hazardous by OSHA criteria.

Local effects Contact may irritate or burn eyes. Liver toxicity. Blood disorder may occur after ingestion. Irritating to skin. Irritating to respiratory system. Components of the product may be absorbed into the body through the skin.

Chronic effects Hazardous by OSHA criteria. This product may be harmful if it is absorbed through the skin. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Subchronic effects Kidney injury may occur. Blood disorder may occur after prolonged inhalation. Blood disorder may occur after prolonged skin contact.

Neurological effects Hazardous by OSHA criteria.

Mutagenicity Not expected to be hazardous by OSHA criteria.

Reproductive effects Not expected to be hazardous by OSHA criteria.

Teratogenicity Not expected to be hazardous by OSHA criteria.

Epidemiology Hazardous by OSHA criteria.

Further information Symptoms may be delayed.

12. Ecological Information

Ecotoxicity LC50 91.38 mg/L estimated, Fish, 96.00 Hours,
EC50 40.7 mg/L estimated, Daphnia, 48.00 Hours,
IC50 11599 mg/L estimated, Algae, 72.00 Hours,
Components of this product have been identified as having potential environmental concerns.

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]
D018: Waste Benzene

Disposal instructions Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Incinerate the material under controlled conditions in an approved incinerator. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name Consumer commodity
Hazard class ORM-D
Subsidiary hazard class None

Additional information:

Packaging exceptions 156, 306
Packaging non bulk 156, 306
Packaging bulk None

IMDG**Basic shipping requirements:**

Proper shipping name AEROSOLS, flammable
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Item 5F
Labels required 2.1
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



15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
 All components are on the U.S. EPA TSCA Inventory List.

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)
Diethylene Glycol Monobutyl Ether	112-34-5	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)
Toluene	108-88-3	1.0 % de minimis concentration

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Toluene: 1000.0000
 Acetone: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
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

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

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

2-Butoxyethanol	111-76-2	Present
Acetone	67-64-1	Environmental hazard
Diethylene Glycol Monobutyl Ether	112-34-5	Environmental hazard
n-Butane	106-97-8	Present
Propane	74-98-6	Present
Toluene	108-88-3	Environmental hazard

16. Other Information**HMIS® ratings**

Health: 2*
Flammability: 3
Physical hazard: 0

Prepared by

Regulatory Compliance

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.

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