ZEP Inc.
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Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name **ZEP-OFF**

Product use Aerosol Paint Remover

Product code **0083**

Date of issue **07/17/14** **Supersedes 08/17/11**

Emergency Telephone Numbers

For MSDS Information:
Technical Services Group
Telephone (780) 453-8100
(Business Hours 8:00am - 5:00pm)

For Medical or Transportation Emergency
CANUTEC (24 Hours)
(613) 996-6666 - Call Collect

Prepared By
Technical Services Group
11627 178th Street
Edmonton, Alberta T5S 1N6

Section 2. Hazards Identification

Emergency overview

CAUTION !

CONTENTS UNDER PRESSURE. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

Do not breathe vapor or mist. Do not ingest. Do not get in eyes. Avoid contact with skin and clothing. Contains material that may cause target organ damage, based on animal data. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure. Wash thoroughly after handling.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Absorbed through skin. Eye contact. Inhalation.

Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching. Eye exposure may cause severe and permanent eye injury (blindness).

Skin Harmful in contact with skin. corrosive, permeator. Skin inflammation is characterized by itching, scaling, or reddening. Skin contact may produce burns.

Inhalation Material is irritating to mucous membranes and upper respiratory tract. Medical conditions aggravated by over-exposure: Respiratory. Can cause central nervous system (CNS) depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Ingestion Harmful if swallowed. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.

Chronic effects Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, brain, peripheral nervous system, eyes, central nervous system (CNS), pancreas. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
METHYLENE CHLORIDE; dichloromethane; methylene dichloride	75-09-2	60 - 100
HYDROCARBON PROPELLANT; blend of isobutane and propane	75-28-5; 106-97-8	10 - 30
METHANOL; methyl alcohol; wood alcohol; columbia spirits	67-56-1	5 - 10
MONOISOPROPANOLAMINE; 1-amino-2-propanol	78-96-6	1 - 5
XYLENE; dimethyl benzene; xylol	1330-20-7	0.1 - 1

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Skin Contact Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point Not determined.

Flammable Limits Not available.

Flammability FLAMMABLE. (CSMA)

Auto-ignition Temperature

Fire-Fighting Procedures Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Use dry chemical or CO_2. or Foam. Cool closed containers exposed to fire with water.

Fire hazard CONTENTS UNDER PRESSURE. FLAMMABLE LIQUID AND VAPOR. In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Products of Combustion May emit toxic fumes under fire conditions. carbon oxides (CO, CO_2) Hydrogen chloride (HCl). Chlorine. Phosgene gas.

Explosion hazard Not available.

Section 6. Accidental Release Measures

Spill Clean up Large spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Empty containers retain product residue and can be hazardous. Watch for accumulation in low confined areas. Wash thoroughly after handling.

Storage CONTENTS UNDER PRESSURE. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Do not store above the following temperature: 49°C (120. 2°F). Do not puncture or incinerate container. Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name **Exposure limits**

No exposure limit value known.

Personal Protective Equipment (PPE)

Eyes Recommended: Safety glasses.

Hands and Body Recommended: Chemical-resistant gloves. Viton® Chemical-resistant apron.

Respiratory Recommended: Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. If concentrations exceed recommended exposure levels, wear an approved/certified respirator until engineering controls are achieved. Approved/certified respirator with organic vapor cartridge.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH Not applicable.
Boiling Point ~40°C (~104°F)
Specific Gravity 1.23
Solubility Insoluble in the following materials: cold water and hot water.
Freezing Point

Color Translucent. Amber.
Odor Amine-like.
Vapor Pressure Not determined.
Vapor Density >1 [Air = 1]
Evaporation Rate >1 (butyl acetate = 1)
VOC (Consumer) 31.7%

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological Information

Carcinogenicity Not available.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dichloromethane	LC50 Inhalation Vapor	Rat	76000 mg/m³	4 hours
	LD50 Oral	Rat	985 mg/kg	-
	LD50 Oral	Rat	1500 mg/kg	-
Isobutane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Oral	Rat	5628 mg/kg	-
1-aminopropan-2-ol	LD50 Dermal	Rabbit	1576 mg/kg	-
	LD50 Oral	Rat	1715 mg/kg	-
	LD50 Oral	Rat	1715 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	3500 mg/kg	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

dichloromethane	-	Acute EC50 242 mg/l Fresh water	Algae - Green algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	-	Acute EC50 500000 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
	-	Acute EC50 99000 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	-	Acute LC50 108500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	-	Acute LC50 220000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours

	-	Chronic NOEC 56000 µg/l Fresh water	Algae - Green algae - Pseudokirchneriella subcapitata	96 hours
methanol	-	Acute EC50 16.912 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute LC50 2500000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	-	Acute LC50 3289 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - Neonate	48 hours
	-	Acute LC50 100 mg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	-	Chronic NOEC 9.96 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
1-aminopropan-2-ol	-	Acute LC50 210000 µg/l Fresh water	Fish - Goldfish - Carassius auratus	96 hours
xylene	-	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
	-	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with applicable regulations. Consult your local or regional authorities for additional information.

Waste Stream Hazardous waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	1950	Aerosols, flammable, containing substances in Division 6.1, Packing Group III	2.1 (6.1)	-		**Explosive Limit and Limited Quantity Index** 1
IMDG Class	Not available.	Not available.	Not available.	-		-

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment. Limited Quantity: Small quantities of controlled goods are not regulated as Dangerous Goods according to TDG regulations.

PG* : Packing group

Section 15. Regulatory Information

Canada

WHMIS (Canada)

Class A: Compressed gas.
Class B-5: Flammable aerosol.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class D-2A: Material causing other toxic effects (Very toxic).

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.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.