ZEP Inc.
11627 178th Street
Edmonton, Alberta T5S 1N6
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name **ZEP TWISTER**

Product use Aerosol Penetrant

Product code **0065**

Date of issue **04/08/14** **Supersedes 04/18/11**

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

DANGER !

FLAMMABLE. VAPOR HARMFUL. CAUSES EYE AND SKIN IRRITATION. HARMFUL OR FATAL IF SWALLOWED.

CONTENTS UNDER PRESSURE.

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. Eye contact. Inhalation.

Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin May cause skin irritation. May be harmul if absorbed through the skin. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system (CNS) depression.

Ingestion Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects Repeated or prolonged exposure to the substance can produce target organs damage. Prolonged or repeated contact may dry skin and cause irritation. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, heart, spleen, adrenal, central nervous system (CNS), ears, eye, lens or cornea, nose/sinuses.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
HEAVY AROMATIC NAPHTHA; solvent naphtha (petroleum); heavy aromatics	64742-94-5	15 - 40
HYDROTREATED LIGHT PETROLEUM DISTILLATES; paraffinic, naphthenic solvent	64742-47-8	10 - 30
MINERAL SEAL OIL; mineral oil; petrolatum	64741-77-1	10 - 30
XYLENE; dimethyl benzene; xylol	1330-20-7	10 - 30
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	1 - 5
ISOPROPYL ALCOHOL; ipa; dimethylcarbinol; 2-propanol	67-63-0	1 - 5
CARBON DIOXIDE	124-38-9	1 - 5

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 immediately.

Skin Contact Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Aspiration hazard if swallowed. Can enter lungs and cause damage. 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. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point Not available.

Flammable Limits Not available.

Flammability FLAMMABLE. (CSMA Method)

Auto-ignition Temperature

Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire. Cool closed containers exposed to fire with water. Fire-fighters should wear appropriate protective equipment.

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, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Products of Combustion carbon oxides (CO, CO_2) and other unidentified organic compounds

Explosion hazard

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). Store and use away from heat, sparks, open flame or any other ignition source. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Observe label precautions. Wash contaminated clothing before reusing. Wash thoroughly after handling.

Storage CONTENTS UNDER PRESSURE. Eliminate all ignition sources. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. 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 Safety glasses.

Hands and Body Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.

Section 9. Physical and Chemical Properties

Physical State Liquid. [Aerosol.]
pH Not applicable
Boiling Point Not determined.
Specific Gravity 0.8625
Solubility Insoluble in the following materials: cold water and hot water.
Freezing Point

Color Amber.
Odor Solvent-like.
Vapor Pressure Not determined.
Vapor Density Not determined.
Evaporation Rate Not determined.
VOC (Consumer) 429.17 (g/l). 3.58 lbs/gal (49.99%)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Keep away from heat, sparks and flame. Reactive or incompatible with the following materials: oxidizing materials.
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
Distillates (petroleum), hydrotreated light	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), straight-run middle	LC50 Inhalation Dusts and mists	Rat	1700 mg/m³	4 hours
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	6700 ppm	4 hours
	LD50 Oral	Rat	3500 mg/kg	-
ethanol	LC50 Inhalation Vapor	Rat	20000 mg/m³	4 hours
	LD50 Oral	Rat	7 g/kg	-
Isopropyl alcohol	LC50 Inhalation Vapor	Rat	16000 ppm	4 hours
	LD50 Dermal	Rabbit	5030 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Section 12. Ecological Information

Environmental Effects Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic Ecotoxicity

Distillates (petroleum), hydrotreated light	-	Acute LC50 2200 µg/l Fresh water	Fish - Bluegill - Lepomis macrochirus	4 days
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
ethanol	-	Acute EC50 17.921 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Acute EC50 2000 µg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 25500 µg/l	Crustaceans - San	48 hours

		Marine water	Francisco Brine Shrimp - Artemia franciscana - Larvae	
	-	Acute LC50 42000 µg/l Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	4 days
	-	Chronic NOEC 4.995 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	-	Chronic NOEC 0.375 ul/L Fresh water	Fish - Eastern mosquitofish - Gambusia holbrooki - Larvae	12 weeks
Isopropyl alcohol	-	Acute LC50 1400000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 1400000 µg/l	Fish - Western mosquitofish - Gambusia affinis	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 Code: D001
Classification: - [Hazardous waste]
Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	1950	Aerosols, flammable	2.1			**Explosive Limit and Limited Quantity Index** 1
IMDG Class	Not determined.					

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-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.