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Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product name BATTERY COAT
Product use Battery Terminal Protectant
Product code 0108
Date of issue 04/14/14 **Supersedes** 05/18/11

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
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Section 2. Hazards Identification

Emergency overview

WARNING!

FLAMMABLE LIQUID AND VAPOR. CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION. CONTENTS UNDER PRESSURE.

Harmful by inhalation, in contact with skin and if swallowed. Do not breathe vapor or mist. 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. Use only with adequate ventilation. 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

Eye contact Dermal contact. Inhalation.

Eyes

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

Skin

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

Inhalation

Material is irritating to mucous membranes and upper respiratory tract. Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness.

Ingestion

Toxic if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Chronic effects

Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, spleen, lymphatic system, peripheral nervous system, upper respiratory tract, skin, eyes, adrenal, central nervous system (CNS).

Repeated or prolonged exposure to the substance can produce target organs damage. Prolonged or repeated contact may dry skin and cause irritation.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
TRICHLOROETHYLENE; acetylene trichloride; 1-chloro-2,2-dichloroethylene	79-01-6	30 - 60
BLEND OF ISOBUTANE & PROPANE	74-98-6; 75-28-5	15 - 40
XYLENE; dimethyl benzene; xylol	1330-20-7	10 - 30
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1 - 5

Section 4. First Aid Measures

- Eye Contact** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin Contact** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- 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. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed. Can enter lungs and cause damage. If vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention immediately.

Section 5. Fire Fighting Measures

- Flash Point** Not determined.
- Flammable Limits** Lower: 8%
Upper: 10.5%
- Flammability** FLAMMABLE. (CSMA)
- 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** In a fire or if heated, a pressure increase will occur and the container may burst.
- Products of Combustion** Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
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. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Do not reuse container. Observe label precautions. 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 container tightly closed and sealed until ready for use. 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** Chemical-resistant gloves. Viton®**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]	Color	Red.
pH	Not available.	Odor	Solvent-like. [Slight]
Boiling Point	54.4°C (130°F)	Vapor Pressure	8 kPa (60 mm Hg)
Specific Gravity	1.25	Vapor Density	Not determined.
Solubility	Insoluble in the following materials: cold water and hot water.	Evaporation Rate	0.75 (butyl acetate = 1)
Freezing Point		VOC (Consumer)	92.3% 8.0 (lb/gal) 955 (g/l)

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	Under normal conditions of storage and use, 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
trichloroethylene	LC50 Inhalation Vapor	Rat	140700 mg/m ³	1 hours
	LD50 Dermal	Rabbit	10000 mg/kg	-
	LD50 Oral	Mouse	2402 mg/kg	-
	LD50 Oral	Rat	4920 mg/kg	-
	LD50 Oral	Rat	4920 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

Product/ingredient name	Test	Experiment	Result
Not available.			

Conclusion/Summary : Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available.				

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Not available.						

Conclusion/Summary : Not available.

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
trichloroethylene	-	Acute EC50 95000 µg/l	Algae - Diatom -	96 hours
	-	Marine water	Skeletonema costatum	
	-	Acute EC50 36.5 mg/l	Algae - Green algae -	72 hours
	-	Fresh water	Chlamydomonas reinhardtii - Exponential growth phase	
	-	Acute LC50 20 mg/l	Crustaceans - Australian Barnacle - Elminius modestus	48 hours
	-	Acute LC50 18000 µg/l	Daphnia - Water flea - Daphnia magna	48 hours

	-	Acute LC50 3100 µg/l Fresh water	Fish - Flagfish - Jordanella floridae - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	-	Chronic EC10 12.3 mg/ l Fresh water	Algae - Green algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
xylene	-	Chronic NOEC 1.384 mg/l Fresh water	Daphnia - Water flea - Daphnia magna	21 days
	-	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio	48 hours
Glycol Ether EB	-	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	-	Acute EC50 >1000 mg/l Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 800000 µg/ l Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon	48 hours
	-	Acute LC50 1250000 µg/l Marine water	Fish - Inland silverside - Menidia beryllina	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, D041
 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	-		<u>Explosive Limit and Limited Quantity Index</u> 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-2B: Material causing other toxic effects (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.*