



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Personal protective equipment
	Class A: Compressed gas. Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).	

Section 1. Product and Company Identification

Product name / Trade name	Aerosol chlorinated HD brake parts cleaner	Associated Product's Item Code	35-615PRES
Synonym	Not available.	CAS #	Not applicable.
Chemical family	Solvent.	Validation date	20/10/2009.
Chemical formula	Not applicable.	Print date	20/10/2009.
Manufacturer	Recochem Inc. 850 Montee de Liesse Montreal, Quebec H4T 1P4 (514) 341-3550 www.recochem.com	<u>In case of emergency</u>	Recochem Inc. Communications and Regulatory Affairs Department (905) 878-5544
Material uses	Not available.		

Section 2. Hazards identification

Emergency Overview	CAUTION! MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CONTAINS MATERIAL WHICH CAN CAUSE CANCER. May be harmful if swallowed. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, 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.
Potential Acute Health Effects	See section 11 for more detailed information on health effects and symptoms. Hazardous by the following route of exposure: of skin contact (corrosive, irritant), of eye contact (irritant, corrosive), of ingestion, of inhalation (lung irritant, lung corrosive). Severe over-exposure can result in death.
Note to Physician	Not available.

Section 3. Composition, information on ingredients

<u>Canada</u>		
Name	CAS number	%
Perchloroethylene	127-18-4	60 - 100
Methane, dichloro-	75-09-2	7 - 13
Carbone dioxide	124-38-9	1 - 5

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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**Section 4. First aid measures**

Eye contact	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 60 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. Get medical attention immediately.
Notes to physician	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Fire-fighting measures

Products of combustion	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds carbonyl halides
Fire-fighting media and instructions	Use an extinguishing agent suitable for the surrounding fire.
Fire Hazards	Product of decomposition include phosgene, chlorine gas, hydrochloric acid, hydrocarbon fumes and smoke
Explosion Hazards	Not available.

Section 6. Accidental release measures

Small spill and leak	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.
Large spill and leak	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and Storage

Handling	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous.
Storage	Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Use appropriate containment to avoid environmental contamination.

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**Section 8. Exposure controls/personal protection**

Engineering controls Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Eyes Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Body Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

United States**Product name**

Methane, dichloro-

Exposure limits**ACGIH TLV (United States, 1/2008).**

TWA: 50 ppm 8 hour(s).

TWA: 174 mg/m³ 8 hour(s).**OSHA PEL 1989 (United States, 3/1989).**

STEL: 125 ppm 15 minute(s).

TWA: 25 ppm 8 hour(s).

OSHA PEL Z2 (United States, 11/2006).

STEL: 125 ppm 15 minute(s).

TWA: 25 ppm 8 hour(s).

Occupational exposure limits

Ingredient	List name	TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
		ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Methane, dichloro-	US ACGIH 1/2008	50	174	-	-	-	-	-	-	-	
	AB 6/2008	50	174	-	-	-	-	-	-	-	
	BC 6/2008	25	-	-	-	-	-	-	-	-	
	ON 6/2008	50	175	-	-	-	-	-	-	-	
	QC 6/2008	50	174	-	-	-	-	-	-	-	

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**Section 9. Physical and chemical properties**

Physical State and Appearance	Liquid.	Odour	Chlorinated hydrocarbon odour. [Strong]
Molecular weight	Not applicable.	Taste	Not available.
pH	Not available.	Colour	Colorless. [Light]
Boiling/condensation point	39.8 to 121°C (103.6 to 249.8°F)	Volatility	Not available.
Melting/freezing point	Not available.	Evaporation rate	>1 (butyl acetate = 1)
Relative density	1.55 to 1.59	Odour Threshold	Not available.
Vapour Pressure	Not available.	Viscosity	Not available.
Vapour Density	>1 [Air = 1]	Solubility	Soluble in the following materials: diethyl ether and acetone. Insoluble in the following materials: cold water and hot water.
VOC Content	0 % (w/w) [ISO 11890-1]	Other Properties	Not available.
The product is:	Non-flammable.		
Auto-ignition temperature	Not available.		
Flash Point	Not available.		
Flammable limits	Not available.		
Fire hazards in the presence of various substances	Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Product of decomposition include phosgene, chlorine gas, hydrochloric acid, hydrocarbon fumes and smoke		

Section 10. Stability and reactivity

Stability	The product is stable.
Conditions of instability	Not available.
Incompatibility with various substances	Not available.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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**Section 11. Toxicological Information****Canada****Acute toxicity**

Perchloroethylene	LC50 Inhalation Vapor LD50 Oral	Mouse Rat	5200 ppm 2629 mg/kg	4 hours -
Methane, dichloro-	LC50 Inhalation Vapor LD50 Oral	Rat Rat	76000 mg/m3 985 mg/kg	4 hours -

Chronic toxicity**Carcinogenicity****Classification**

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Methane, dichloro-	A3	2B	-	+	Possible	+

Mutagenicity**Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Reproductive toxicity****Conclusion/Summary** : Not available.**Section 12. Ecological information**

For accidental discharges into the environment, see Section 6: "Accidental Release Measures" for suggested instructions.

Ecotoxicity : No known significant effects or critical hazards.**Canada****Aquatic ecotoxicity**

Product/ingredient name	Result	Species	Exposure
Methane, dichloro-	Acute EC50 99000 to 121500 ug/L Fresh water	Fish - Pimephales promelas - 49 mm - 1.04 g	96 hours
	Acute LC50 108500 to 130900 ug/L Marine water	Crustaceans - Palaemonetes pugio - Juvenile (Fledgling, Hatchling, Weanling) - 20 mm	48 hours
	Acute LC50 220000 to 330000 ug/L Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Chronic NOEC 130 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours

Conclusion/Summary : Not available.**Biodegradability****Conclusion/Summary** : Not available.

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**Section 13. Disposal considerations**

Waste information The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Do not puncture or incinerate container.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14. Transport information

Canada TDG Classification		No placard (handling and hazard label) required.
Class	-	
Subsidiary class	-	
Proper Shipping Name (Canada) TDG	-	
UN number	Not regulated.	
Packing Group	-	
Special provisions	In containers of 1 L (1Kg) capacity or less this product is classified as a "Limited Quantities" "Consumer Commodity" under TDG regulations.	
IMDG Classification		No placard (handling and hazard label) required.
Class	-	
Subsidiary class	-	
Proper Shipping Name IMDG	-	
UN number	Not regulated.	
Packing Group	-	
Marine pollutant	Not a pollutant.	
Special provisions	<u>Remarks</u> In containers of 1 L (1Kg) capacity or less this product is classified as a "Limited Quantity" under IMDG regulations	
United States DOT (Classification)		No placard (handling and hazard label) required.
Class	ORM-D	
Subsidiary class	-	
Proper Shipping Name (United States) DOT	Not available.	
UN number	Not available.	
Packing Group	-	
Special provisions	In containers of 1 L (1Kg) this product is qualified as a "consumer commodity" ORM-D under DOT	

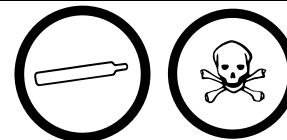
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**International Air
Transport Association
(IATA)**

For air shipment classification and associated regulations, please refer to the latest edition of IATA Dangerous Goods Regulations.

Section 15. Regulatory information**WHMIS Classification
(Canada)**

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

**Canada Domestic
Substances List (DSL)
Status**

This product and/ or all of its components are on the DSL.

**HCS Classification
(U.S.A.)**

Carcinogen
 Target organ effects

U.S.A. Regulatory Lists

This product and/ or all of its components are on the TSCA inventory list.

**Hazardous Material
Information System
(U.S.A.)**

Health	2
Flammability	0
Reactivity	0
Personal protection	B

**National Fire
Protection
Association
(U.S.A.)**

Health	2	0	0	Flammability
				Reactivity
				Specific hazard

Section 16. Other informationValidated and verified by Compliance and Technical Information Manager on 20/10/2009
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Notice to reader

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.

MSDS are available at www.recochem.com