



SAFETY DATA SHEET

1. Identification

Product identifier	Tyme™-1 Cold Parts Cleaner
Other means of identification	
Product Code	Item# 1750566
Recommended use	Parts cleaning solvent for use in cold cleaner / dip tank
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufactured or sold by:	
Company name	CRC Canada Co.
Address	83 Galaxy Blvd Unit 35 - 37 Toronto, ON M9W 5X6 Canada
Telephone	
General Information	416-847-7750
24-Hour Emergency (CHEMTREC)	800-424-9300 (Canada)
Website	www.crc-canada.ca
E-mail	Support.CA@crcindustries.com

2. Hazard identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1C
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1B
	Carcinogenicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word	Danger
Hazard statement	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause drowsiness or dizziness. May cause cancer. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental information	When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
tetrachloroethylene	perchloroethylene	127-18-4	45 - 70
water		7732-18-5	15 - 40
cyclohexanol		108-93-0	7 - 13
tall oil		8002-26-4	1 - 5
ethoxylated nonylphenol, branched		68412-54-4	0.1 - 1

The exact percentage (concentration) of composition has been withheld as a trade secret.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

This product is miscible in water. Prevent product from entering drains.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated place. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	50 ppm
tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	205 mg/m ³
		50 ppm
tetrachloroethylene (CAS 127-18-4)	STEL	678 mg/m ³
		100 ppm
	TWA	170 mg/m ³
		25 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	50 ppm
tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	50 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	50 ppm
tetrachloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
cyclohexanol (CAS 108-93-0)	TWA	206 mg/m3
		50 ppm
tetrachloroethylene (CAS 127-18-4)	STEL	685 mg/m3
		100 ppm
	TWA	170 mg/m3 25 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
tetrachloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

* - For sampling details, please see the source document.

Exposure guidelines**Canada - Alberta OELs: Skin designation**

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

cyclohexanol (CAS 108-93-0)

Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear protective gloves such as: Polyvinyl alcohol (PVA). Polytetrafluoroethylene (PTFE). Viton/butyl.

Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Yellow.

Odor Solvent.

Odor threshold Not available.

pH 12.2

Melting point/freezing point -8.1 °F (-22.3 °C) estimated

Initial boiling point and boiling range 212 °F (100 °C) estimated

Flash point None.

Evaporation rate Slow.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1.3 % estimated

Flammability limit - upper (%) 13.1 % estimated

Vapor pressure 17.1 hPa estimated

Vapor density > 3 (air = 1)

Relative density 1.24

Solubility(ies)

Solubility (water) Emulsifiable.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature 572 °F (300 °C) estimated

Decomposition temperature Not available.

Viscosity Not available.

Other information

Percent volatile 95.5 % estimated

10. Stability and reactivity

Reactivity Reacts violently with strong acids. This product may react with oxidizing agents.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Heat, flames and sparks. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene. Contact with incompatible materials. Do not mix with other chemicals.

Incompatible materials Acids. Strong oxidizing agents. Oxidizing agents.

Hazardous decomposition products Chlorine. Hydrogen chloride. Phosgene. Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity Not known.

Components	Species	Test Results
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ethoxylated nonylphenol, branched (CAS 68412-54-4)

Acute

Dermal

LD50	Rabbit	4400 mg/kg 2830 mg/kg
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Oral

LD50	Rat	3000 mg/kg
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tall oil (CAS 8002-26-4)

Acute

Dermal

LD50	Rabbit	> 2000 mg/kg
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Oral

LD50	Rat	> 2000 mg/kg
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Skin corrosion/irritation Causes severe skin burns and eye damage.

Exposure minutes 120.0000

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.

ACGIH Carcinogens

tetrachloroethylene (CAS 127-18-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
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Canada - Manitoba OELs: carcinogenicity

tetrachloroethylene (CAS 127-18-4)	Confirmed animal carcinogen with unknown relevance to humans.
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Canada - Quebec OELs: Carcinogen category

tetrachloroethylene (CAS 127-18-4)	Detected carcinogenic effect in animals.
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IARC Monographs. Overall Evaluation of Carcinogenicity

tetrachloroethylene (CAS 127-18-4)	2A Probably carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens

tetrachloroethylene (CAS 127-18-4)	Reasonably Anticipated to be a Human Carcinogen.
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Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.
Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Product		Species	Test Results
Tyme™-1 Cold Parts Cleaner			
Aquatic			
Crustacea	EC50	Daphnia	12.7553 mg/l, 48 hours estimated
<i>Acute</i>			
Fish	LC50	Fish	36.0314 mg/l, 96 hours estimated

Components		Species	Test Results
cyclohexanol (CAS 108-93-0)			
Aquatic			
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	704 mg/l, 96 hours
ethoxylated nonylphenol, branched (CAS 68412-54-4)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	> 10 mg/l, 96 hours
tall oil (CAS 8002-26-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	12.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 20 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
cyclohexanol	1.23
tall oil	4.7
tetrachloroethylene	3.4

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number	UN2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (potassium hydroxide, morpholine), Limited Quantity
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1
Packing group	III
Environmental hazards	Yes, but exempt from the regulations.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	16

IATA

UN number	UN2922
UN proper shipping name	Corrosive liquid, toxic, n.o.s. (potassium hydroxide, morpholine)
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1
Packing group	III
ERG Code	8P
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

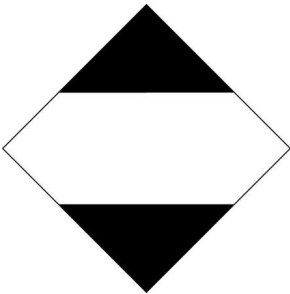
IMDG

UN number	UN2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (potassium hydroxide, morpholine), Limited Quantity
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1
Packing group	III
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA



IMDG; TDG



15. Regulatory information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.
Canada. Excluded VOCs. Guidelines for Volatile Organic Compounds in Consumer Products. CEPA 1999. Environment Canada, as amended	tetrachloroethylene (CAS 127-18-4)
Controlled Drugs and Substances Act	Not regulated.
Export Control List (CEPA 1999, Schedule 3)	Not listed.
Greenhouse Gases	Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

tetrachloroethylene (CAS 127-18-4)

Precursor Control Regulations

Not regulated.

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
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)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information**Issue date** 06-25-2018**Revision date** 11-16-2018**Version #** 02**Further information** CRC # 609J/1002648

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Revision information Hazard identification: Hazard statement
Hazard identification: Response
Transport Information: Material Transportation Information