

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: MULTI-PURPOSE WIPES

Product Code(s) : MPDW30C

Recommended use of the chemical and restrictions on use

: Cleaner / Degreaser. Designed for all surfaces, including hand cleaning.

Chemical family : Mixture.

Name, address, and telephone number of the supplier:

Radiator Specialty Co., of Canada

3-3055 Dundas St West, Suite 50
Mississauga, ON, Canada
L5L 3R8

Supplier's Telephone # : (905) 625-9117 (Mon. - Fri., 8 am - 4 pm)

24 Hr. Emergency Tel # : In case of transportation emergencies: (613) 996-6666 (CANUTEC)

Name, address, and telephone number of the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Towelette saturated with clear liquid. Citrus odour.

Most important hazards:

Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

This product is packaged and sold as a consumer product. The below WHMIS 2015 classification and labeling information is being provided for informational purposes.

This material is not classified as hazardous under Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required according to Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Signal Word

None required according to Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard statement(s)

None required according to Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Precautionary statement(s)

None required according to Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Other hazards

Other hazards which do not result in classification:

Toxic fumes, gases or vapours may evolve on burning. May cause slight eye and skin irritation. May cause gastrointestinal irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
Butyl 3-hydroxybutyrate	Butyl 3-hydroxybutanoate Butyl 3-oxybutanoate	53605-94-0	1.0 - 5.0

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SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.
- Inhalation* : If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention.
- Skin contact* : For skin contact, wash with soap and water while removing contaminated clothing. If irritation or symptoms develop, seek medical attention. Launder clothing before reuse.
- Eye contact* : Rinse thoroughly with plenty of water, also under the eyelids. If irritation or symptoms develop, seek medical attention.

Most important symptoms and effects, both acute and delayed

- : May cause slight eye and skin irritation. Direct eye contact may cause slight redness. Direct skin contact may cause temporary redness. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

- : Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Not considered flammable. However, may burn if exposed to extreme heat and flame. Toxic fumes, gases or vapours may evolve on burning.

Hazardous combustion products

- : Carbon oxides; Other unidentified organic compounds.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Wear appropriate protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

- : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labeled containers. Residual liquid can be absorbed on inert material. Clean surface thoroughly to remove residual contamination. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities. For waste disposal, see Section 13 of the SDS.

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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling.

Conditions for safe storage

- : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials

- : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Butyl 3-hydroxybutyrate	N/Av	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

- : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection

- : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with CSA Z94.4-02. Advice should be sought from respiratory protection specialists.

Skin protection

- : Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Wear sufficient clothing to prevent skin contact.

Eye / face protection

- : Wear as appropriate: Safety glasses with side shields; Tightly fitting safety goggles

Other protective equipment

- : An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Towelette saturated with clear liquid.

Odour : Citrus odour.

Odour threshold : N/Av

pH : 4.5 - 6 (liquid component)

Melting/Freezing point : N/Av

Initial boiling point and boiling range

: N/Av

Flash point : > 99.5°C (towelette with liquid)

Flashpoint (Method) : ASTM D3828

Evaporation rate (BuAe = 1) : N/Av

Flammability (solid, gas) : Not classified as flammable.

Lower flammable limit (% by vol.)

: N/Av

Upper flammable limit (% by vol.)

: N/Av

Oxidizing properties

: None known.

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- Explosive properties : Not explosive
- Vapour pressure : N/Av
- Vapour density : N/Av
- Relative density / Specific gravity : 1.0 (liquid component)
- Solubility in water : Soluble (liquid component)
- Other solubility(ies) : N/Av
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution : N/Av
- Auto-ignition temperature : N/Av
- Decomposition temperature : N/Av
- Viscosity : N/Av
- Volatiles (% by weight) : < 0.5% (liquid component)
- Volatile organic Compounds (VOC's) : N/Av
- Absolute pressure of container : N/Av
- Flame projection length : N/Av
- Other physical/chemical comments : No additional information.

SECTION 10. STABILITY AND REACTIVITY

- Reactivity : Not normally reactive.
- Chemical stability : Stable under normal conditions.
- Possibility of hazardous reactions : Hazardous polymerization does not occur. No dangerous reaction known under conditions of normal use.
- Conditions to avoid : Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials.
- Incompatible materials : Strong oxidizing agents
- Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

- Routes of entry inhalation : NO
- Routes of entry skin & eye : YES
- Routes of entry Ingestion : YES
- Routes of exposure skin absorption : NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

- : No adverse effects due to inhalation are expected.

Sign and symptoms ingestion

- : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin

- : May cause slight irritation. Direct skin contact may cause temporary redness.

Sign and symptoms eyes

- : May cause slight irritation. Direct eye contact may cause slight redness.

Potential Chronic Health Effects

- : None known or reported by the manufacturer.

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- Mutagenicity** : No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- Carcinogenicity** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
- Reproductive effects & Teratogenicity** : This product is not expected to cause reproductive or developmental effects.
- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
- Specific target organ effects** : According to the classification criteria of Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause specific target organ toxicity (STOT) through single or repeated exposures.
- Medical conditions aggravated by overexposure** : Pre-existing skin or eye disorders.
- Synergistic materials** : None known or reported by the manufacturer.
- Toxicological data** : No data is available on the product itself. See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	LC₅₀ (4hr)	LD₅₀	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Butyl 3-hydroxybutyrate	> 5.1 mg/L (mist) (No mortality)	> 5000 mg/kg	> 5000 mg/kg

Other important toxicological hazards

- : None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Butyl 3-hydroxybutyrate	53605-94-0	> 100 mg/L (Rainbow trout)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Butyl 3-hydroxybutyrate	53605-94-0	> 100 mg/L (Daphnia magna)	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Butyl 3-hydroxybutyrate	53605-94-0	> 63.1 mg/L/72hr (Green algae)	63.1 mg/L/72hr	None.

Persistence and degradability

- : No data is available on the product itself.
The following ingredients are considered to be readily biodegradable: Butyl 3-hydroxybutyrate.

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Bioaccumulation potential : No data is available on the product itself. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Butyl 3-hydroxybutyrate (CAS 53605-94-0)	1.83	3.299 (calculated)

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects


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

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Follow labeled warnings even after container is emptied.

Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	None.	Not regulated.	Not regulated	None	
TDG Additional information	None.				

Special precautions for user : Appropriate advice on safety must accompany the package.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

SECTION 15 - REGULATORY INFORMATION

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Canadian National Pollutant Release Inventory (NPRI): This product does not contain any substances listed on the NPRI.

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

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International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	New Zealand IOC
Butyl 3-hydroxybutyrate	53605-94-0	258-658-1	Not specifically listed.	Not specifically listed.	Not specifically listed.	Not specifically listed.	Not specifically listed.	May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.

SECTION 16. OTHER INFORMATION**Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists
 AICS: Australian Inventory of Chemical Substances
 CAS: Chemical Abstract Services
 CSA: Canadian Standards Association
 EC50: Effective Concentration 50%
 EINECS: European Inventory of Existing Commercial chemical Substances
 ENCS: Existing and New Chemical Substances
 HSDB: Hazardous Substances Data Bank
 IARC: International Agency for Research on Cancer
 IBC: Intermediate Bulk Container
 IECSC: Inventory of Existing Chemical Substances
 IMDG: International Maritime Dangerous Goods
 Inh: Inhalation
 ISHL: Industrial Safety Health Law
 KECI: Korean Existing Chemicals Inventory
 KECL: Korean Existing Chemicals List
 LC: Lethal Concentration
 LD: Lethal Dose
 N/Ap: Not Applicable
 N/Av: Not Available
 NIOSH: National Institute of Occupational Safety and Health
 NOEC: No observable effect concentration
 NTP: National Toxicology Program
 OECD: Organisation for Economic Co-operation and Development
 OSHA: Occupational Safety and Health Administration
 PEL: Permissible exposure limit
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 RTECS: Registry of Toxic Effects of Chemical Substances
 SCBA: Self-Contained Breathing Apparatus
 SDS: Safety Data Sheet
 STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2018.
 2. International Agency for Research on Cancer Monographs, searched 2018.
 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
 4. Material Safety Data Sheets from manufacturer.
 5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p><u>Prepared for:</u> Radiator Specialty Co. of Canada 3-3055 Dundas St West, Suite 50 Mississauga, ON, Canada, L5L 3R8 Telephone: 905-625-9117 (Mon. - Fri., 8 AM - 4 PM) Please direct all enquiries to Radiator Specialty.</p>	
<p><u>Prepared by:</u> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) http://www.thecompliancecenter.com</p>	

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