



SAFETY DATA SHEET

Tergo Metal Cleaning Fluid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Tergo Metal Cleaning Fluid

Product number MCC-TMCFEUD, MCC-TMCFEUG, MCC-TMCFEUGG, MCC-TMCFEUHGG, MCC-TMCFEUP, MCC-TMCFEUGL, MCC-TMCFEUHGL

Synonyms; trade names Prototype 10-122-2

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier MICROCARE LLC

Manufacturer MICROCARE LLC
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: + 1 800 638 0125, +1 860-827-0626
techsupport@microcare.com

Emergency telephone number

Emergency telephone INFOTRAC 1-800-535-5053 (U.S.A. and CANADA)
1-352-323-3500 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H332 Eye Irrit. 2A - H319 STOT SE 3 - H336

Human health See Section 11 for additional information on health hazards. May be slightly irritating to eyes. Splashes in the eyes may cause redness and irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Physicochemical Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers.

Label elements

Hazard symbols



Tergo Metal Cleaning Fluid

Signal word	Warning
Hazard statements	H332 Harmful if inhaled. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary statements	P261 Avoid breathing vapor/ spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a poison center/ doctor if you feel unwell. P337+P313 If eye irritation persists: Get medical advice/ attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH210 Safety data sheet available on request. RCH001a For use in industrial installations only.
Contains	trans-1,2-DICHLOROETHYLENE

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

trans-1,2-DICHLOROETHYLENE	60-95%
CAS number: 156-60-5	
Classification	
Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Eye Irrit. 2A - H319 STOT SE 3 - H336 Not relevant.	
Proprietary A	1-5%
CAS number: Proprietary	
Classification	
Not relevant.	
Proprietary B	1-5%
CAS number: Proprietary	
Classification	
Not relevant.	

The full text for all hazard statements is displayed in Section 16.

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Composition comments TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

Composition

4. First-aid measures

Description of first aid measures

General information	If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.
Skin Contact	Rinse with water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Get medical attention if any discomfort continues.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
Ingestion	No specific symptoms known.
Skin contact	No specific symptoms known.
Eye contact	No specific symptoms known. May be slightly irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. This product is toxic.
Hazardous combustion products	Hazardous decomposition products: Incineration may cause the following products: Toxic and corrosive gases or vapors. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO ₂). Carbon monoxide (CO). Hydrogen chloride (HCl).

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Advice for firefighters

Protective actions during firefighting

Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of vapors and spray/mists. Use suitable respiratory protection if ventilation is inadequate.

Environmental precautions

Environmental precautions

Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Provide adequate ventilation. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Tergo Metal Cleaning Fluid

Storage precautions	Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
Storage class	Miscellaneous hazardous material storage.
Specific end uses(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.
Reference to other sections.	Store away from incompatible materials (see Section 10).

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

trans-1,2-DICHLOROETHYLENE

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 793 mg/m³
 ACGIH = American Conference of Governmental Industrial Hygienists.

Ingredient comments ACGIH = US Standard. WEL = Workplace Exposure Limits

Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	No specific hand protection recommended. Avoid contact with skin.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.
Environmental exposure controls	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Clear liquid.

Tergo Metal Cleaning Fluid

Color	Water-white.
Odor	Slight. Ether.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	46.8°C/116.24°F
Flash point	Does not flash. TCC ASTM D-56; ASTM D-3278-96
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Explosive Limits: Lower explosive limit: 7 %(V) Upper explosive limit: 15.6 %(V) ASTM E681-09
Other flammability	No information available.
Relative density	1.29
Bulk density	No information available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	log Pow: 1.91 at 25°C (estimated)
Auto-ignition temperature	372°C/702°F
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	This product contains a maximum VOC content of 1178 g/l.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	No potentially hazardous reactions known.
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.

Tergo Metal Cleaning Fluid

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapors.

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.
Acute toxicity - oral	
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - dermal	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	Acute Tox. 4 - H332 Harmful if inhaled.
ATE inhalation (vapours mg/l)	11.0
Skin corrosion/irritation	
Animal data	Based on available data the classification criteria are not met.
Serious eye damage/irritation	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
Respiratory sensitization	
Respiratory sensitization	Based on available data the classification criteria are not met.
Skin sensitization	
Skin sensitization	Based on available data the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard	
Aspiration hazard	Based on available data the classification criteria are not met.

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General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Headache. Exhaustion and weakness.
Ingestion	No specific symptoms known.
Skin Contact	No specific symptoms known.
Eye contact	No specific symptoms known.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.
Medical Symptoms	Product has a defatting effect on skin. May cause allergic contact eczema. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Toxicological information on ingredients.

trans-1,2-DICHLOROETHYLENE

Other health effects	There is no evidence that the product can cause cancer.
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	7,902.0
Species	Rat
ATE oral (mg/kg)	7,902.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rat
ATE dermal (mg/kg)	5,000.0
<u>Acute toxicity - inhalation</u>	
ATE inhalation (vapours mg/l)	11.0
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Prolonged and frequent contact may cause redness and irritation.
Animal data	Slightly irritating. Rabbit
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Supplier's information. Rabbit 500 mg 24 hours Causes mild skin irritation.
<u>Respiratory sensitization</u>	
Respiratory sensitization	No specific test data are available.
<u>Skin sensitization</u>	
Skin sensitization	No specific test data are available.

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Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Genotoxicity - in vivo This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity No specific test data are available.

Specific target organ toxicity - single exposure

STOT - single exposure NOAEL Not available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 16 mg/l, 90 days

Target organs Endocrine system Liver Kidneys Bladder Respiratory tract

Proprietary B

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 222.15

Species Rat

ATE inhalation (vapours mg/l) 222.15

Skin corrosion/irritation

Animal data Not irritating. Rabbit

Human skin model test Data lacking.

Extreme pH Not applicable. Not corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. Rabbit

Respiratory sensitization

Respiratory sensitization Data lacking.

Skin sensitization

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Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: >0.096 mg/l, Oryzias latipes (Red killifish)
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: >0.157 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >0.000477 mg/l, Pseudokirchneriella subcapitata

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

trans-1,2-DICHLOROETHYLENE

Biodegradation	Not readily biodegradable. Method: OECD Test Guideline 301D
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Proprietary B

Biodegradation	Inherently biodegradable.
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Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.91 at 25°C (estimated)

Ecological information on ingredients.

trans-1,2-DICHLOROETHYLENE

Bio-Accumulative Potential	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
Partition coefficient	log Pow: 2.06

Proprietary B

Bio-Accumulative Potential	BCF: 1990, Cyprinus carpio (Common carp)
Partition coefficient	Pow: 4.9

Mobility in soil

Mobility No data available.

Ecological information on ingredients.

trans-1,2-DICHLOROETHYLENE

Mobility	The product has poor water-solubility.
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Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

Tergo Metal Cleaning Fluid

General information	The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.
Waste class	No information available.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (IMDG) Not classified as dangerous for transport.

UN No. (DOT) UN3082 (>2640 lbs), otherwise Not classified as hazardous.

UN proper shipping name

Proper shipping name (IMDG) Not classified as dangerous for transport.

Proper shipping name (DOT) DOT only - when shipped in packages with > 2640 lbs., use: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Dichloroethylene), 9, PGIII RQ (Dichloroethylene)

Transport hazard class(es)

Transport Labels (International) Not applicable., No information required.

Transport labels

No transport warning sign required.

Packing group

Packing group (International) No information required., Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed or exempt:

Tergo Metal Cleaning Fluid

trans-1,2-DICHLOROETHYLENE

Final CERCLA RQ: 1000(454) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

trans-1,2-DICHLOROETHYLENE

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

trans-1,2-DICHLOROETHYLENE

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

trans-1,2-DICHLOROETHYLENE

Inventories

Tergo Metal Cleaning Fluid

US - TSCA

Present.

US - TSCA 12(b) Export Notification

The following ingredients are listed:

Proprietary A

trans-1,2-DICHLOROETHYLENE

Australia - AICS

The following ingredients are listed:

trans-1,2-DICHLOROETHYLENE

16. Other information

Abbreviations and acronyms used in the safety data sheet	<p>TDG: The transport of dangerous goods act</p> <p>IATA: International air transport association.</p> <p>ICAO: Technical instructions for the safe transport of dangerous goods by air.</p> <p>IMDG: International maritime dangerous goods.</p> <p>CAS: Chemical abstracts service.</p> <p>ATE: Acute toxicity estimate.</p> <p>LC₅₀: Lethal concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal dose to 50% of a test population (median lethal dose).</p> <p>EC₅₀: 50% of maximal effective concentration.</p> <p>PBT: Persistent, bioaccumulative and toxic substance.</p> <p>vPvB: Very persistent and very bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Acute Tox. = Acute toxicity</p> <p>Aquatic Chronic = Hazardous to the aquatic environment (chronic)</p>
Training advice	Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	12/2/2021
Revision	77
Supersedes date	5/25/2021
SDS No.	BULK - TMCFEU
SDS status	Approved.
Hazard statements in full	<p>H225 Highly flammable liquid and vapor.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H336 May cause drowsiness or dizziness.</p>
NFPA - health hazard	Irritation, minor residual injury. (1)
NFPA - flammability hazard	Will not burn. (0)
NFPA - instability hazard	Normally stable. (0)
NFPA - special hazard	N/A

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.