SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision date 08/05/2024 **Revision Number** 1.01

1. Identification

Product identifier

Product Name Tergo General Cleaning Fluid

Other means of identification

Safety data sheet number BULK-TGCF

Product Code(s) MCC-TGCFGL, MCC-TGCFP, MCC-TGCFD

UN number or ID number Not Regulated

Synonyms Prototype 20-81-1

Recommended use of the chemical and restrictions on use

Recommended use Solvent For industrial use only

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address
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

E-mail 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

Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3

Hazards not otherwise classified (HNOC)
Not applicable.

Label elements

Warning

Hazard statements
Harmful if inhaled.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wash face, hands and any exposed skin thoroughly after handling.
Wear eye protection/ face protection.

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Unknown acute toxicity
49.1448 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
47.3252 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Other information
Harmful to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance
Not applicable.
Mixture

Chemical name	CAS No.	Weight-%	Trade secret
trans-1,2-DICHLOROETHYLENE	156-60-5	50 - <100%	*
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether	406-78-0	25 - <50%	*
ETHANOL	64-17-5	1 - <2.5%	*
METHANOL	67-56-1	0.025 - <0.25%	*
ISOBUTYL METHYL KETONE	108-10-1	0.025 - <0.25%	*
ETHYL ACETATE	141-78-6	0.025 - <0.25%	*

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

4. First-aid measures

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapors or mists. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/ or wheezing. Difficulty in breathing.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical No information available.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
trans-1,2-DICHLOROETHYLENE 156-60-5	TWA: 200 ppm	TWA: 200 ppm TWA: 790 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 790 mg/m³	IDLH: 1000 ppm TWA: 200 ppm TWA: 790 mg/m³
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether 406-78-0	-	TWA: 75 ppm	-
ETHANOL 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m³
METHANOL 67-56-1	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 260 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m³ (vacated) Sk*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³
ISOBUTYL METHYL KETONE 108-10-1	TWA: 20 ppm STEL: 75 ppm	TWA: 100 ppm TWA: 410 mg/m³	IDLH: 500 ppm TWA: 50 ppm

		(vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m³	TWA: 205 mg/m³ STEL: 75 ppm STEL: 300 mg/m³
ETHYL ACETATE 141-78-6	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1400 mg/m³	IDLH: 2000 ppm TWA: 400 ppm TWA: 1400 mg/m³

Biological occupational exposure limits

Chemical name	ACGIH
METHANOL 67-56-1	15 mg/L - urine (Methanol) - end of shift
ISOBUTYL METHYL KETONE 108-10-1	1 mg/L - urine (MIBK) - end of shift

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid
Appearance Clear liquid
Color Colourless
Odor Slight Ether
Odor threshold No information available

Property	Values	Remarks • Method
pH	No data available	None known
pH (as aqueous solution)		None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	42 °C / 107.6 °F	42°C/108°F
Flash point	Not Flammable	Does not flash, Tag closed cup (ASTM D 56) ASTM D-3278-96
Evaporation rate	No data available	1.27 (diethyl ether = 1)
Flammability	No data available	Not flammable
Flammability Limit in Air		None known
Upper flammability or explosive	15.6	

limits		
Lower flammability or explosive limits	7.0	
Vapor pressure	No data available	None known
Relative vapor density	No data available	None known
Relative density	1.35 @ 25°C	None known
Water solubility	Immiscible with water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	0.34 cSt @ 25°C	None known

Other information

Volatility	100%, Volatile
Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
Liquid Density	1.29
Bulk density	No information available

10. Stability and reactivity

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/or wheezing.

Acute toxicity Harmful by inhalation.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) 5,015.30 mg/kg
ATEmix (inhalation-gas) 4,513.80 ppm
ATEmix (inhalation-dust/mist) 1.56 mg/l

Unknown acute toxicity

49.1448 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
47.3252 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
trans-1,2-DICHLOROETHYLENE 156-60-5	= 1235 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	= 24100 ppm (Rat) 4 h
ETHANOL 64-17-5	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
METHANOL 67-56-1	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
ISOBUTYL METHYL KETONE 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	2000 - 4000 ppm (Rat) 4 h
ETHYL ACETATE 141-78-6	= 5620 mg/kg (Rat)	> 18000 mg/kg (Rabbit)	= 4000 ppm (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
ETHANOL 64-17-5	A3	Group 1	Known	X
ISOBUTYL METHYL KETONE 108-10-1	A3	Group 2B	-	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
Occupational Safety and Health Administration of the US Department of Labor
X - Present

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Target organ effects Liver, Respiratory system, Eyes, Skin, Central nervous system, Blood, Reproductive system.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
trans-1,2-DICHLOROETHYLENE 156-60-5	-	LC50: =135mg/L (96h, Lepomis macrochirus)	-	-
ETHANOL 64-17-5	-	LC50: 12.0 - 16.0mL/L (96h, Oncorhynchus mykiss) LC50: >100mg/L (96h, Pimephales promelas) LC50: 13400 - 15100mg/L (96h, Pimephales promelas)	-	LC50: 9268 - 14221mg/L (48h, Daphnia magna) EC50: =2mg/L (48h, Daphnia magna)
METHANOL 67-56-1	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-
ISOBUTYL METHYL KETONE 108-10-1	EC50: =400mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 496 - 514mg/L (96h, Pimephales promelas)	-	EC50: =170mg/L (48h, Daphnia magna)
ETHYL ACETATE 141-78-6	-	LC50: 220 - 250mg/L (96h, Pimephales promelas) LC50: =484mg/L (96h, Oncorhynchus mykiss) LC50: 352 - 500mg/L (96h, Oncorhynchus mykiss)	-	EC50: =560mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation
Component Information

Chemical name	Partition coefficient
trans-1,2-DICHLOROETHYLENE 156-60-5	2.06
ETHANOL 64-17-5	-0.35
METHANOL 67-56-1	-0.77
ISOBUTYL METHYL KETONE 108-10-1	1.9
ETHYL ACETATE 141-78-6	0.73

Other adverse effects No information available.

13. Disposal considerations

Disposal methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT
- **UN number or ID number** Not Regulated
- **Proper shipping name** Not applicable
- **Transport hazard class(es)** Not Regulated
- **Packing group** Not Regulated

TDG
- **UN number or ID number** Not Regulated
- **UN proper shipping name** Not applicable
- **Transport hazard class(es)** Not Regulated
- **Packing group** Not Regulated

MEX
- **UN number or ID number** Not Regulated
- **UN proper shipping name** Not applicable
- **Transport hazard class(es)** Not Regulated
- **Packing group** Not Regulated

ICAO (air)
- **UN number or ID number** Not Regulated
- **UN proper shipping name** Not applicable
- **Transport hazard class(es)** Not Regulated
- **Packing group** Not Regaulsted

IATA

UN number or ID number	Not Regulated
UN proper shipping name	Not applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable

IMDG

UN number or ID number	Not Regulated
UN proper shipping name	Not applicable
Transport hazard class(es)	Not Regulated
Packing group	Not Applicable

15. Regulatory information

International Inventories

TSCA TSCA: The ingredients of this product are listed on the active TSCA Inventory.

Chemical name	CAS No.	Inventory Listing Status	Commercial Activity Designation
trans-1,2-DICHLOROETHYLENE	156-60-5	Present	Active
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether	406-78-0	Present	Active
ETHANOL	64-17-5	Present	Active
METHANOL	67-56-1	Present	Active
ISOBUTYL METHYL KETONE	108-10-1	Present	Active
ETHYL ACETATE	141-78-6	Present	Active

TSCA 12(b)

Chemical name	U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification
trans-1,2-DICHLOROETHYLENE	Listed
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether	Listed

DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECI	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.
NZIoC	Contact supplier for inventory compliance status.

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
trans-1,2-DICHLOROETHYLENE - 156-60-5	1.0
METHANOL - 67-56-1	3.0%
ISOBUTYL METHYL KETONE - 108-10-1	0.1

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
trans-1,2-DICHLOROETHYLENE 156-60-5	-	X	X	-
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether 406-78-0	-	X	-	-
METHANOL 67-56-1	-	-	-	3.0%

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
trans-1,2-DICHLOROETHYLENE 156-60-5	1000 lb	-	1000 pounds/454 Kilograms
METHANOL 67-56-1	5000 lb	-	5,000 pounds/2270 Kilograms
ISOBUTYL METHYL KETONE 108-10-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
ETHYL ACETATE 141-78-6	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
ETHANOL - 64-17-5	Carcinogen Developmental
METHANOL - 67-56-1	Developmental
ISOBUTYL METHYL KETONE - 108-10-1	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
trans-1,2-DICHLOROETHYLENE 156-60-5	X	Listed	Listed
1,1,2,2-Tetrafluoroethyl-2,2,2-trifluoroethyl ether 406-78-0	-	-	X
ETHANOL 64-17-5	X	X	X
METHANOL	Listed	Listed	Listed

67-56-1			
ISOBUTYL METHYL KETONE 108-10-1	X	X	X
ETHYL ACETATE 141-78-6	X	X	X

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	**Health hazards**	3	**Flammability**	0	**Instability**	0	**Special hazards**	-
HMIS	**Health hazards**	2 *	**Flammability**	0	**Physical hazards**	0	**Personal protection**	X

Chronic Hazard Star Legend ** = Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 08/05/2024
Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet