SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Number 1.02
Revision date 20/10/2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name	TERGO HEAVY DEGREASING FLUID
Synonyms	Prototype 18-70-1
Product Code(s)	MCC-THDFD, MCC-THDFP, MCC-THDFG, MCC-THDFGL
Safety data sheet number	THDF
Unique Formula Identifier (UFI)	JY30-EOAA-KOOM-84FJ
Pure substance/mixture	Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use	Cleaning agent For industrial use only
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer
MicroCare UK Ltd
Unit 4, Whitehall Court
Leeds
LS12 5SN
United Kingdom
Tel: +44 (0) 113 3609019
Email: MCCEurope@MicroCare.com
For further information, please contact

Contact Point	el: +44 (0) 113 3609019
E-mail address	mcceurope@microcare.com

1.4. Emergency telephone number

Emergency Telephone	INFOTRAC +44 330 027 0156 (UK) 1-352-323-3500 (from anywhere in the world)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Inhalation (Vapours)	Category 4 - (H332)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity — single exposure	Category 3 - (H336)
Category 3 Narcotic effects	
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Signal word
Warning
Hazard statements
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects
EUH210 - Safety data sheet available on request

Precautionary Statements - EU (§28, 1272/2008)
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear eye protection/ face protection.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P501 - Dispose of contents/ container to an approved waste disposal plant.
Unknown acute toxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Additional information
This product requires tactile warnings if supplied to the general public.

2.3. Other hazards
No information available.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable
3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
trans-1,2-DICHLOROETHYLENE 156-60-5	50 - <100%	01-2120093504-55-0003	205-860-2	Acute Tox. 4 (H332) Aquatic Chronic 3 (H412) Flam. Liq. 2 (H225)	-	-	-
HEPTAFLUOROCYCLOPENTANE 15290-77-4	5 - <10%	02-2120746221-65-0000	430-710-1	Aquatic Chronic 3 (H412)	-	-	-
(Z)-1-chloro-2,3,3-trifluoropropene 1263679-68-0	2.5 - <5%	01-2120811806-55-0000	824-458-3	Aquatic Chronic 3 (H412) STOT SE 3 (H336)	-	-	-

(E)-1-chloro-2,3,3-trifluoropropene 1263679-71-5	0.5 - <1%	No data available	-	Aquatic Chronic 3 (H412) STOT SE 3 (H336)	-	-	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. 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 doctor. 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. In the case of skin irritation or allergic reactions see a doctor.

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 vapours or mists. Use personal protective equipment as required. See section 8 for more information.

4.2. Most important symptoms and effects, both acute and delayed

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

Effects of Exposure No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. 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 vapours or mists.

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

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. 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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. 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 vapours or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

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.

7.2. 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.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
trans-1,2-DICHLOROETHYLENE 156-60-5	-	TWA: 200 ppm TWA: 790 mg/m³ STEL 800 ppm STEL 3160 mg/m³	TWA: 200 ppm TWA: 805 mg/m³	-	TWA: 200 ppm TWA: 806 mg/m³ STEL: 250 ppm STEL: 1010 mg/m³
(Z)-1-chloro-2,3,3-trifluoropropene 1263679-68-0	TWA: 250 ppm	-	-	-	-

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
trans-1,2-DICHLOROETHYLENE 156-60-5	-	TWA: 800 mg/m³ Ceiling: 1600 mg/m³	TWA: 200 ppm TWA: 790 mg/m³ STEL: 400 ppm STEL: 1580 mg/m³	-	TWA: 200 ppm TWA: 800 mg/m³ STEL: 250 ppm STEL: 1000 mg/m³

Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
trans-1,2-DICHLOROETHYLENE 156-60-5	-	TWA: 200 ppm TWA: 800 mg/m³	-	TWA: 200 ppm TWA: 790 mg/m³ STEL: 250 ppm STEL: 1000 mg/m³	TWA: 200 ppm TWA: 800 mg/m³ STEL: 400 ppm STEL: 1580 mg/m³

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
trans-1,2-DICHLOROETHYLENE 156-60-5	TWA: 200 ppm TWA: 790 mg/m³ STEL: 600 ppm STEL: 2370 mg/m³	-	-	-	-

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
trans-1,2-DICHLOROETHYLENE 156-60-5	-	-	-	TWA: 100 ppm TWA: 395 mg/m³ STEL: 150 ppm STEL: 493.75 mg/m³	TWA: 700 mg/m³

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
trans-1,2-DICHLOROETHYLENE 156-60-5	TWA: 200 ppm	TWA: 50 ppm TWA: 200 mg/m³ STEL: 76 ppm STEL: 300 mg/m³	TWA: 200 ppm TWA: 800 mg/m³ Ceiling: 1010 mg/m³	TWA: 200 ppm TWA: 800 mg/m³ STEL: 400 ppm STEL: 1600 mg/m³	-

Chemical name	Sweden	Switzerland	United Kingdom
trans-1,2-DICHLOROETHYLENE 156-60-5	-	TWA: 200 ppm TWA: 790 mg/m³ STEL: 400 ppm STEL: 1580 mg/m³	TWA: 200 ppm TWA: 806 mg/m³ STEL: 250 ppm STEL: 1010 mg/m³

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

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.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Water-white
Odour	Characteristic. Solvent.
Odour threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	45 °C	None known
Flammability	No data available	Not flammable
Flammability Limit in Air		
Upper flammability or explosive limits	13.75	
Lower flammability or explosive limits	7.30	
Flash point	No data available	Will Not Flash Tag Closed Cup
Autoignition temperature	No data available	
Decomposition temperature		
pH	No data available	
pH (as aqueous solution)	No data available	
Kinematic viscosity	< 1	
Dynamic viscosity	No data available	
Water solubility		
Solubility(ies)	No data available	
Partition coefficient	No data available	
Vapour pressure	No data available	
Relative density	No data available	
Bulk density	No data available	
Liquid Density	1.27	
Relative vapour density	No data available	
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity No information available.

10.2. Chemical stability
Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid
Conditions to avoid Excessive heat.

10.5. Incompatible materials
Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products
Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
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 diarrhoea. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics
Symptoms May cause redness and tearing of the eyes. Inhalation of high vapour 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) 99,999.00 mg/kg

Unknown acute toxicity

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Skin corrosion/irritation May cause skin irritation.

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

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards
11.2.1. Endocrine disrupting properties
Endocrine disrupting properties No information available.

11.2.2. Other information
Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity
Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability
Persistence and degradability No information available.
12.3. Bioaccumulative potential
Bioaccumulation
Component Information

Chemical name	Partition coefficient
trans-1,2-DICHLOROETHYLENE	2.06
HEPTAFLUOROCYCLOPENTANE	2.4
(Z)-1-chloro-2,3,3-trifluoropropene	1.9

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment 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.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not Regulated
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable

IMDG

14.1 UN number or ID number	Not Regulated
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
14.7 Maritime transport in bulk according to IMO instruments	Not applicable

ADR

14.1 UN number or ID number	Not Regulated
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not Regulated
14.4 Packing group	Not Regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
Classification code	Not Regulated

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations

Germany
Water hazard class (WGK) non-hazardous to water (nwg)

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

15.2. Chemical safety assessment
Chemical Safety Report No information available

SECTION 16: Other information

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

Full text of H-Statements referred to under section 3
H225 - Highly flammable liquid and vapour
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects

Legend
SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

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

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	On basis of test data

Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	On basis of test data
Acute inhalation toxicity - vapour	On basis of test data
Acute inhalation toxicity - dust/mist	On basis of test data
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	On basis of test data
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	On basis of test data
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

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)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (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)
Australian 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)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 20/10/2023

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
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