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



Revision date 01/15/2025 Revision Number 1

# 1. Identification

**Product identifier** 

Product Name MicroCare™ 73DE Engineered Fluid

Other means of identification

Safety data sheet number BULK-73DEEF

Product Code(s) 73DEEFL, 73DEEFGG, 73DEEFP, 73DEEFD

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Cleaning agent Restricted to professional users

Restrictions on use Consumer use

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 of the substance or mixture

Acute toxicity - Oral	Cat	egory 4
Acute toxicity - Inhalation (Dusts/Mists)	Cat	egory 4

#### Hazards not otherwise classified (HNOC)

Not applicable.

# Label elements

Page 1 / 11



Warning

#### Hazard statements

Harmful if swallowed. Harmful if inhaled.

# **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

## **Precautionary Statements - Response**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor if you feel unwell.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

Rinse mouth.

## **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

## Unknown acute toxicity

15 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

15 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

# Hazards classified under paragraph (d)(1)(i)(B) of 1910.1200

No information available.

#### Other information

May be harmful in contact with skin. Harmful to aquatic life with long lasting effects.

# 3. Composition/information on ingredients

# <u>Substance</u>

Not applicable.

<u>Mixture</u>

Chemical name	CAS No.	Weight-%	Trade secret
trans-1,2-DICHLOROETHYLENE	156-60-5	50 - <100%	*
Pentane	132182-92-4	10 - <25%	*
1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoro			
methyl)			

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

# 4. First-aid measures

#### **Description of first aid measures**

**Revision date** 01/15/2025

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

**Inhalation** Remove to fresh air. If symptoms persist, call a physician. If breathing has stopped, give

artificial respiration. Get medical attention immediately.

**Eye contact**Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**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** 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** 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

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.

**Hazardous combustion products** 

**Explosion data** 

Carbon monoxide. Carbon dioxide (CO2). Hydrogen chloride. Hydrogen fluoride.

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. Avoid breathing vapors or mists. Use personal protective

equipment as required.

**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 breathing

vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

#### 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	Supplier OEL
Pentane 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)	TWA: 100ppm (AIHA)
132182-92-4	

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
trans-1,2-DICHLOROETHYLEN	TWA: 200 ppm	TWA: 200 ppm	IDLH: 1000 ppm
E		TWA: 790 mg/m <sup>3</sup>	TWA: 200 ppm
156-60-5		(vacated) TWA: 200 ppm	TWA: 790 mg/m <sup>3</sup>
		(vacated) TWA: 790 mg/m <sup>3</sup>	· ·

## **Appropriate engineering controls**

Engineering controls Showers

Eyewash stations Ventilation systems.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection**No special protective equipment required.

exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Do not eat, drink or smoke when using this product.

# 9. Physical and chemical properties

# 73DEEFL, 73DEEFGG, 73DEEFP, 73DEEFD -MicroCare™ 73DE Engineered Fluid

Information on basic physical and chemical properties

Clear liquid **Appearance** Physical state Liquid Color colorless Odor (includes odor threshold) Slight

Property Values Remarks • Method

Melting point / freezing point No data available None known Boiling point (or initial boiling point or 48 °C / 118.4 °F None known

boiling range)

Flammability No data available Not flammable

Flammability Limit in Air None known

Upper flammability or explosive limits 15.0 Lower flammability or explosive limits

Flash point No data available Does not flash, Tag closed cup (ASTM

D 56)

**Autoignition temperature** No data available None known No data available **Decomposition temperature** None known SADT (°C) No data available None known No data available None known pH (as aqueous solution) No data available None known Kinematic viscosity 0.3 cSt at 25°C None known Dynamic viscosity No data available None known Solubility No data available None known Water solubility No data available None known Partition coefficient n-octanol/water (log No data available None known

Vapor pressure (includes evaporation rate) 263 mmHg at 25°C None known Density and/or relative density No data available None known

**Bulk density** No data available

**Liquid Density** 1.28

No data available Relative vapor density None known Particle characteristics None known

**Particle Size** No data available **Particle Size Distribution** No data available

Other information

Information with regard to physical hazard classes

# 10. Stability and reactivity

No information available. Reactivity

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Excessive heat.

None known based on information supplied. Incompatible materials

Hazardous decomposition products None known based on information supplied.

# 11. Toxicological information

Information on likely routes of exposure

**Product Information** 

**Revision date** 01/15/2025

**Inhalation** Specific test data for the substance or mixture is not available. Harmful by inhalation. (based

on components).

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Harmful if swallowed. (based

on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing.

**Acute toxicity** Harmful if swallowed. Harmful by inhalation.

**Numerical measures of toxicity** 

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

ATEmix (oral) 1,235.00 mg/kg
ATEmix (dermal) 5,000.00 mg/kg
ATEmix (inhalation-gas) 99,999.00 ppm
ATEmix (inhalation-vapor) 95.60 mg/l
ATEmix (inhalation-dust/mist) 1.50 mg/l

#### Unknown acute toxicity

15 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

15 % 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	= 1235 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	= 24100 ppm (Rat) 4 h
	156-60-5			
	Pentane	>2000 mg/kg (rat)	Estimated >2000 mg/kg (rat)	>430 mg/L (rat, 4hr)
1,1,1,2,2,3,4,5,5,5-decafluoro-3-metho			-	
	xy-4-(trifluoromethyl)			
	132182-92-4			

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 No information available.

**Respiratory or skin sensitization** No information available.

Germ cell mutagenicity No information available.

**Carcinogenicity** No information available.

Reproductive toxicity No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure**No information available.

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-DICHLOROET	-	LC50: =135mg/L (96h,	-	-
HYLENE		Lepomis macrochirus)		
156-60-5				

Persistence and degradability No information available.

#### **Bioaccumulation**

**Component Information** 

Chemical name	Partition coefficient
trans-1,2-DICHLOROETHYLENE	2.06
156-60-5	

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 numberNot regulatedProper shipping nameNot applicableTransport hazard class(es)Not applicable

**TDG** 

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

**MEX** 

UN number or ID number
UN proper shipping name
Not regulated
Not applicable

# 73DEEFL, 73DEEFGG, 73DEEFP, 73DEEFD - MicroCare™ 73DE Engineered Fluid

Transport hazard class(es) No information available

ICAO (air)

UN number or ID number Not regulated UN proper shipping name Not applicable

Transport hazard class(es) No information available

**IATA** 

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

**IMDG** 

UN number or ID number
UN proper shipping name
Transport hazard class(es)

Not regulated
Not applicable
Not applicable

# 15. Regulatory information

**International Regulations** 

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

#### **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
Pentane	132182-92-4	Present	Active
1,1,1,2,2,3,4,5,5,5-decafluoro-3-metho			
xy-4-(trifluoromethyl)			

## **TSCA 12(b)**

Chemical name	U.S TSCA (Toxic Substances Control Act) - Section	
	12(b) - Export Notification	
trans-1,2-DICHLOROETHYLENE	Listed	
Pentane 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)	Listed	

**DSL/NDSL** Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. **EINECS/ELINCS ENCS** Contact supplier for inventory compliance status. **IECSC** Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. **KECL** Contact supplier for inventory compliance status. **PICCS** 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

# 73DEEFL, 73DEEFGG, 73DEEFP, 73DEEFD - MicroCare™ 73DE Engineered Fluid

ENCS - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing Chemicals Inventory

PICCS - Philippines Inventory of Chemicals and Chemical Substances

**AllC** - 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

## 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).

10 01 11 122. 12).				
Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
trans-1,2-DICHLOROET	-	Х	X	-
HYLENE				
156-60-5				

#### **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	-	RQ 1000 lb final RQ RQ 454 kg final RQ

# **US State Regulations**

## California Proposition 65

This product does not contain any Proposition 65 chemicals.

## U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
trans-1,2-DICHLOROETHYLEN	X	X	X
E			
156-60-5			

## 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 1	Flammability 0	Physical hazards 0	Personal protection -

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

#### Legend

Logona	
ACGIH	American Conference of Governmental Industrial Hygienists
ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

Globally Harmonized System  IARC International Agency for Research on Cancer  International Code for the Construction and Equipment of Ships carrying Dangerous  Chemicals in Bulk  International Code for the Construction and Equipment of Ships carrying Dangerous  Chemicals in Bulk  International Civil Aviation Organization  IEGSC Inventory of Existing Chemical Substances in China  IIMDG International Maritime Dangerous Goods  IIMDG International Maritime Dangerous Goods  IIMDG International Organization for Standardization  KECI Korean Existing Chemicals Inventory  IC50 Lethal Concentration to 50% of a test population  ID50 Lethal Concentration to 50% of a test population  ID50 Lethal Dose to 50% of a test population (Median Lethal Dose)  INFPA National Fire Protection Association  NIOSH National Institute for Occupational Safety and Health  No.s. Not Otherwise Specified  NOAEC No Observed Adverse Effect Concentration  NOAEL No Observed Adverse Effect Level  NOAEL No Observed Adverse Effect Level  NOELR No Observed Adverse Effect Level  NOELR National Toxicology Program (United States)  NIZIOC New Zealand Inventory of Chemicals  OECD Organization for Economic Cooperation and Development  OEL Occupational Safety and Health Administration of the US Department of Labor  PBT Persistent, Bioaccumulative and Toxic substance  PICCS Philippines Inventory of Chemicals and Chemical Substances  PMT Persistent, Bioaccumulative and Toxic substances  PMT Persistent, Bioaccumulative and Toxic substances  PBT Personal protective equipment  OGSAR Quantitative Structure Activity Relationship  Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)  SARA Supe		(re )		
AITE Acute Toxicity Estimate ASTM American Society for the Testing of Materials ASTM American Society for the Testing of Materials Bar Biological Reference Values for Chemical Compounds in the Work Area BAT Biological Reference Values for Coccupational exposure BEL Biological exposure limits BEL Biological exposure limits Bell Biological Biologic	455			
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ASTM American Society for the Testing of Materials bar Biological Reference Values for Chemical Compounds in the Work Area Biological Reference Values for Occupational exposure BEL Biological exposure limits  BEL Biological exposure limits  BW Body weight Ceiling Maximum limit value CMR Carcinogen, Mutagen or Reproductive Toxicant  DOT Department of Transportation (United States)  DSL Domestic Substances List (Canada)  EmS Emergency Schedule EmCS Existing and New Chemical Substances (Japan)  EPA Environmental Protection Agency  GHS Globally Harmonized System  HMIS Hazardous Materials Identification System  International Agency for Research on Cancer  International Corl of the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  International Corl of the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  International Corl of the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  International Martime Dangerous Goods  International Martime Organization  International Martime Organization  International Martime Organization  International Martime Organization  International Martime Organization on the International Contention on the Prevention of Pollution from Ships  NEC (CS) Lethal Concentration to 50% of a test population (Median Lethal D				
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Body weight Calling Maximum limit value CMR Carcinogen, Mutagen or Reproductive Toxicant DOT Department of Transportation (United States) DSL Domestic Substances List (Canada) EmS Emergency Schedule EmS Emergency Schedule ENCS Existing and New Chemical Substances (Japan) EPA Environmental Protection Agency GHS Globally Harmonized System HAMIS Hazardous Materials Identification System HAMIS Hazardous Materials Identification System HAMIS Hazardous Materials Identification System International Agency for Research on Cancer International Agency for Research on Cancer International Ari Transport Association International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk CAO International Civil Aviation Organization International Civil Aviation Organization International Maritime Dangerous Goods International Maritime Dangerous Goods International Maritime Dangerous Goods International Maritime Organization International Maritime Organization International Crop International Organization International Organization for Standardization KECI Korean Existing Chemicals Inventory LC50 Lethal Concentration to 50% of a test population LD50 Lethal Concentration to 50% of a test population (Median Lethal Dose) International Concentration of Concentration NARPOL International Concentration of Pollution from Ships NFPA National Fire Protection Association NARPOL International Concentration of Cocupational Safety and Health No.s. Not Observed Adverse Effect Concentration NOAEC No Observed Adverse Effect Concentration NOAEC No Observed Adverse Effect Concentration NOAEC No Observed Adverse Effect Loading Rate NOELR No Observed Advers	1			
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STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure	SL	Surface Limit		
STOT RE Specific target organ toxicity - Repeated exposure STOT SE Specific target organ toxicity - Single exposure	STEL			
STOT SE Specific target organ toxicity - Single exposure	STOT RE			
	STOT SE			

TDG	Transport of Dangerous Goods (Canada)	
TSCA	Toxic Substances Control Act (United States)	
TWA	Time-Weighted Average	
UN	United Nations	
VOC	Volatile organic compounds	
vPvB	Very Persistent and Very Bioaccumulative	
vPvM	Very Persistent and Very Mobile	
Sen+	Sensitizer	
Sk*	Skin designation	
**	Hazard 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 01/15/2025

**Revision Note**No information available.

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**End of Safety Data Sheet**