



## SAFETY DATA SHEET HEAVY-DUTY DEGREASER, BULK

According to the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013, as amended.

### SECTION 1: identification of the hazardous chemical and of the supplier

#### Product identifier

**Product name** HEAVY-DUTY DEGREASER, BULK  
**Product number** MCC-HDDP, MCC-HDDD, MCC-HDDG

#### Recommended use of the substance or mixture and restrictions on use

**Identified uses** Cleaning agent.

#### Details of the supplier of the safety data sheet

**Supplier** MICROCARE ASIA PTE LTD  
 102E, Pasir Panjang Road,  
 Citilink, #05-06,  
 Singapore 118529  
 Phone (65)6271.0182  
 techsupport@microcare.sg

**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 +65 3163 5349 (SINGAPORE)  
 1-352-323-3500 (from anywhere in the world)

### SECTION 2: Hazard identification

#### Classification of the substance or mixture

##### Classification

**Physical hazards** Not Classified  
**Health hazards** Acute Tox. 4 - H332  
**Environmental hazards** Aquatic Chronic 3 - H412

**Human health** Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild dermatitis, allergic skin rash.

**Environmental** The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**Physicochemical** Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapour displaces oxygen available for breathing (asphyxiant).

## HEAVY-DUTY DEGREASER, BULK

### Label elements

#### Pictogram



<b>Signal word</b>	Warning
<b>Hazard statements</b>	H332 Harmful if inhaled. H412 Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	P261 Avoid breathing vapour/ spray. P271 Use only outdoors or in a wellventilated area. P273 Avoid release to the environment. P312 Call a POISON CENTER or doctor/ physician if you feel unwell. P501 Dispose of contents/ container in accordance with national regulations.
<b>Supplemental label information</b>	EUH210 Safety data sheet available on request. RCH001a For use in industrial installations only.
<b>Contains</b>	trans-1,2-DICHLOROETHYLENE
<b>Supplementary precautionary statements</b>	P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

#### Other hazards

This product does not contain any substances classified as PBT or vPvB (persistent, bioaccumulative and toxic, or very persistent and very bioaccumulative).

### SECTION 3: Composition and information of the ingredients of the hazardous chemical

#### Mixtures

<b>trans-1,2-DICHLOROETHYLENE</b>	<b>60-100%</b>
CAS number: 156-60-5	
<b>Classification</b>	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H332	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
Aquatic Chronic 3 - H412	
<b>1,1,1,2,2,3,4,5,5,5-decafluoropentane</b>	<b>10-30%</b>
CAS number: 138495-42-8	
<b>Classification</b>	
Aquatic Chronic 3 - H412	

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

**Composition comments**            The data shown are in accordance with the latest EC Directives.

#### Composition

### SECTION 4: First-aid measures

#### Description of first aid measures

## HEAVY-DUTY DEGREASER, BULK

<b>General information</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Place unconscious person on the side in the recovery position and ensure breathing can take place. If breathing stops, provide artificial respiration.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Consult a physician for specific advice.
<b>Skin contact</b>	Remove contaminated clothing and rinse skin thoroughly with water.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Consult a physician for specific advice.

### Most important symptoms and effects, both acute and delayed

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Vapours may cause drowsiness and dizziness. Difficulty in breathing. Nausea, vomiting.
<b>Ingestion</b>	May cause stomach pain or vomiting. Congestion of the lungs may occur, producing severe shortness of breath. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
<b>Skin contact</b>	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
<b>Eye contact</b>	Profuse watering of the eyes. Irritation and redness, followed by blurred vision.

### Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations. If in doubt, get medical attention promptly.
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## SECTION 5: Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
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### Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours. Closed containers can burst violently when heated, due to excess pressure build-up.
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### Advice for fire-fighters

<b>Protective actions during firefighting</b>	Containers close to fire should be removed or cooled with water.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level.
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### Environmental precautions

## HEAVY-DUTY DEGREASER, BULK

**Environmental precautions** Contain spillage with sand, earth or other suitable non-combustible material. Avoid release to the environment.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground. Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage with a shovel and broom, or similar and reuse, if possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards.

## SECTION 7: Handling and storage

### Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

**Storage class** The product is non-combustible.

### Specific end use(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).

## SECTION 8: Exposure controls and personal protection

### Control parameters

**Ingredient comments** ACGIH = US Standard.

### Exposure controls

#### Protective equipment



#### Appropriate engineering controls

No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

## HEAVY-DUTY DEGREASER, BULK

<b>Hygiene measures</b>	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Wear self-contained breathing apparatus with full facepiece.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Clear liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Slight. Ether.
<b>Odour threshold</b>	No information available.
<b>pH</b>	No information available.
<b>Melting point</b>	No information available.
<b>Initial boiling point and range</b>	39°C/102°F @ 101.3 kPa
<b>Flash point</b>	The product is not flammable.
<b>Evaporation rate</b>	No information available.
<b>Evaporation factor</b>	No information available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Lower flammable/explosive limit: 5.5 %(V) Upper flammable/explosive limit: 13 %(V)
<b>Other flammability</b>	The product is not flammable.
<b>Vapour pressure</b>	55.3 kPa @ 25°C/77°F
<b>Vapour density</b>	No information available.
<b>Relative density</b>	1.27 g/cm <sup>3</sup> @ 25°C/77°F
<b>Bulk density</b>	No information available.
<b>Solubility(ies)</b>	No information available.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition temperature</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Explosive properties</b>	No information available.
<b>Global Warming Potential (GWP)</b>	
<b>Surface tension</b>	
<b>Refractive index</b>	No information available.
<b>Particle size</b>	Not applicable.

## HEAVY-DUTY DEGREASER, BULK

<b>Molecular weight</b>	Not applicable.
<b>Volatility</b>	100%
<b>Saturation concentration</b>	No information available.
<b>Critical temperature</b>	No information available.
<b>Heat of vaporization (at boiling point), cal/g (Btu/lb)</b>	

### SECTION 10: Stability and reactivity

<b>Reactivity</b>	The following materials may react with the product: Strong alkalis.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	Will not polymerise.
<b>Conditions to avoid</b>	Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.
<b>Materials to avoid</b>	Alkali metals. Alkaline earth metals. Powdered metal.
<b>Hazardous decomposition products</b>	Heating may generate the following products: Toxic and corrosive gases or vapours. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO).

### SECTION 11: Toxicological information

#### Information on toxicological effects

#### Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 12.94

<b>Inhalation</b>	Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.
<b>Ingestion</b>	May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.
<b>Skin contact</b>	Product has a defatting effect on skin. May cause allergic contact eczema.
<b>Eye contact</b>	May cause temporary eye irritation.
<b>Medical symptoms</b>	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

#### Toxicological information on ingredients

#### trans-1,2-DICHLOROETHYLENE

<b>Other health effects</b>	There is no evidence that the product can cause cancer.
<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	7,902.0
<b>Species</b>	Rat

## HEAVY-DUTY DEGREASER, BULK

<b>ATE oral (mg/kg)</b>	7,902.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	5,000.0
<b>Species</b>	Rat
<b>ATE dermal (mg/kg)</b>	5,000.0
<b><u>Acute toxicity - inhalation</u></b>	
<b>ATE inhalation (vapours mg/l)</b>	11.0
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Prolonged and frequent contact may cause redness and irritation.
<b>Animal data</b>	Slightly irritating. Rabbit
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Supplier's information. Rabbit 500 mg 24 hours Causes mild skin irritation.
<b><u>Respiratory sensitization</u></b>	
<b>Respiratory sensitization</b>	No specific test data are available.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	No specific test data are available.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	This substance has no evidence of mutagenic properties.
<b>Genotoxicity - in vivo</b>	This substance has no evidence of mutagenic properties.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	No specific test data are available.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	NOAEL Not available.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	NOAEL 16 mg/l, 90 days
<b>Target organs</b>	Endocrine system Liver Kidneys Bladder Respiratory tract

### 1,1,1,2,2,3,4,5,5,5-decafluoropentane

<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	5,000.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	5,000.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	5,000.0

## HEAVY-DUTY DEGREASER, BULK

<b>Species</b>	Rat
<b>ATE dermal (mg/kg)</b>	5,000.0
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)</b>	114.0
<b>Species</b>	Rat
<b>ATE inhalation (vapours mg/l)</b>	114.0
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Not irritating. Rabbit
<b>Human skin model test</b>	Data lacking.
<b>Extreme pH</b>	Not applicable. Not corrosive to skin.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Not irritating. Rabbit
<b><u>Respiratory sensitization</u></b>	
<b>Respiratory sensitization</b>	Data lacking.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	Not sensitizing. - Guinea pig: Not sensitizing.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	This substance has no evidence of mutagenic properties.
<b>Genotoxicity - in vivo</b>	This substance has no evidence of mutagenic properties.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Does not contain any substances known to be carcinogenic.
<b>IARC carcinogenicity</b>	Not listed.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	No evidence of reproductive toxicity in animal studies.
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<b>Skin contact</b>	Skin irritation should not occur when used as recommended. May cause defatting of the skin but is not an irritant.
<b>Eye contact</b>	May cause eye irritation.
<b>Acute and chronic health hazards</b>	There is no evidence that the product can cause cancer.

### SECTION 12: Ecological Information

<b>Ecotoxicity</b>	The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential. The product contains a substance or substances that will contribute to global warming (greenhouse effect).
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## HEAVY-DUTY DEGREASER, BULK

### Ecological information on ingredients

#### trans-1,2-DICHLOROETHYLENE

**Ecotoxicity** Harmful to aquatic life. May cause long lasting harmful effects to aquatic life.

#### 1,1,1,2,2,3,4,5,5,5-decafluoropentane

**Ecotoxicity** It is unlikely that the substance will dissolve in water in amounts big enough to have a toxic effect on fish and daphnies.

### Ecological information on ingredients

#### trans-1,2-DICHLOROETHYLENE

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 135 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 220 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** LC<sub>50</sub>, 72 hours: 36.36 mg/l, Pseudokirchneriella subcapitata

##### Chronic aquatic toxicity

**Chronic toxicity - fish early life stage** NOEC, 48 hours: 110,000 mg/l, Daphnia magna

#### 1,1,1,2,2,3,4,5,5,5-decafluoropentane

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 13.9 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hours: 11.7 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: >120 mg/l, Algae

### Persistence and degradability

### Ecological information on ingredients

#### trans-1,2-DICHLOROETHYLENE

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

### Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

### Ecological information on ingredients

#### trans-1,2-DICHLOROETHYLENE

**Bioaccumulative potential** Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**Partition coefficient** log Pow: 2.06

## HEAVY-DUTY DEGREASER, BULK

### 1,1,1,2,2,3,4,5,5,5-decafluoropentane

**Bioaccumulative potential** Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**Partition coefficient** Pow: 2.7

#### Mobility in soil

**Mobility** The product contains volatile substances which may spread in the atmosphere.

#### Ecological information on ingredients

### trans-1,2-DICHLOROETHYLENE

**Mobility** The product has poor water-solubility.

#### Other adverse effects

**Other adverse effects** The product contains a substance or substances that will contribute to global warming (greenhouse effect).

### SECTION 13: Disposal information

#### Waste treatment methods

**General information** Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### SECTION 14: Transportation information

**General** Not regulated. The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, Road/Rail).

#### UN number

#### UN proper shipping name

Not applicable. No information required.

#### Transport hazard class(es)

Not applicable. No information required.

#### Packing group

Not applicable. No information required.

#### Environmental hazards

#### **Environmentally hazardous substance/marine pollutant**

No.

#### Special precautions for user

Not applicable. No information required.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable. No information required.

### SECTION 15: Regulatory information

#### Safety, health and environmental regulations specific for the substance or mixture

## HEAVY-DUTY DEGREASER, BULK

### SECTION 16: Other information

<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Revision date</b>	3/6/2021
<b>Revision</b>	28
<b>Supersedes date</b>	1/10/2018
<b>SDS number</b>	BULK - HDD
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H332 Harmful if inhaled. H412 Harmful to aquatic life with long lasting effects.

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.