



## SAFETY DATA SHEET

### HEAVY-DUTY DEGREASER, AEROSOL

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

##### 1.1. Product identifier

**Product name** HEAVY-DUTY DEGREASER, AEROSOL

**Product number** MCC-HDD19A

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

**Identified uses** Cleaning agent.

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

**Supplier** MICROCARE EUROPE BVBA  
 VEKESTRAAT 29 B11  
 INDUSTRIEZONE 'T SAS  
 1910 KAMPENHOUT, Belgium  
 Phone +32.2.251.95.05  
 Fax +32.2.400.96.39  
 EuroSales@MicroCare.com

**Manufacturer** MICROCARE U.K. LTD  
 SEVEN HILLS BUSINESS CENTRE  
 SOUTH STREET, MORLEY  
 LEEDS, WEST YORKSHIRE, UK LS27 8AT  
 Tel: +44 (0) 113 3609019  
 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

###### Classification (EC 1272/2008)

**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. Not considered to be a significant hazard due to the small quantities used. Gas or vapour displaces oxygen available for breathing (asphyxiant).

## HEAVY-DUTY DEGREASER, AEROSOL

### 2.2. Label elements

#### Hazard pictograms



#### Signal word

Warning

#### Hazard statements

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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-DICHLOROETHYLENE

#### Supplementary precautionary statements

P273 Avoid release to the environment.

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>trans-1,2-DICHLOROETHYLENE</b>			<b>30-60%</b>
CAS number: 156-60-5	EC number: 205-860-2	REACH registration number: 01-2120093504-55-0003	
<b>Classification</b> Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Eye Irrit. 2 - H319 STOT SE 3 - H336 Aquatic Chronic 3 - H412			
<b>HFC-134a Tetrafluoroethane</b>			<b>10-30%</b>
CAS number: 811-97-2	EC number: 212-377-0		
<b>Classification</b> Press. Gas (Liq.) - H280			

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<b>1,1,1,2,2,3,4,5,5,5-decafluoropentane</b>		<b>10-30%</b>
CAS number: 138495-42-8	EC number: 420-640-8	REACH registration number: 01-2119446695-28-0000
<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

##### 4.1. Description of first aid measures

<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.

##### 4.2. 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 headache, fatigue, dizziness and nausea. Difficulty in breathing. Upper respiratory irritation. Severe irritation of nose and throat.
<b>Ingestion</b>	May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo.
<b>Skin contact</b>	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
<b>Eye contact</b>	Irritation of eyes and mucous membranes. Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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

**Notes for the doctor**          No specific recommendations. If in doubt, get medical attention promptly.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

**Suitable extinguishing media**    The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

##### 5.2. Special hazards arising from the substance or mixture

**Specific hazards**                Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours. Aerosol containers can explode when heated, due to excessive pressure build-up.

## HEAVY-DUTY DEGREASER, AEROSOL

**Hazardous combustion products** Heating may generate the following products: Toxic and corrosive gases or vapours. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Bursting aerosol containers may be propelled from a fire at high speed.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** 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.

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation.

### 6.4. Reference to other sections

**Reference to other sections** See Section 11 for additional information on health hazards.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

**Reference to other sections.** Store away from incompatible materials (see Section 10).

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### **trans-1,2-DICHLOROETHYLENE**

Long-term exposure limit (8-hour TWA): ACGIH

Short-term exposure limit (15-minute): ACGIH 200 ppm

#### **HFC-134a Tetrafluoroethane**

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 4240 mg/m<sup>3</sup>

## HEAVY-DUTY DEGREASER, AEROSOL

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

No information available that would effect occupational exposure limit values.

ACGIH = American Conference of Governmental Industrial Hygienists.

WEL = Workplace Exposure Limit.

**Ingredient comments** ACGIH = US Standard.

### 8.2. 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.

#### 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.

#### Hygiene measures

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.

#### Respiratory protection

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

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Clear liquid. Aerosol.
<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>Upper/lower flammability or explosive limits</b>	Upper flammable/explosive limit: 13 %(V) Lower flammable/explosive limit: 5.5 %(V)
<b>Other flammability</b>	The product is not flammable. Aerosol ignition distance: none at 0.0 cm
<b>Vapour pressure</b>	55.3 kPa @ 25°C

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<b>Vapour density</b>	3.7
<b>Relative density</b>	1.27
<b>Bulk density</b>	No information available.
<b>Solubility(ies)</b>	0.3 g/100 g water @ 20°C Slightly soluble in water.
<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>Oxidising properties</b>	Not known.
<b>Comments</b>	Aerosol

### Global Warming Potential (GWP)

### Surface tension

### 9.2. Other information

<b>Refractive index</b>	No information available.
<b>Particle size</b>	No information available.
<b>Molecular weight</b>	No information available.
<b>Volatility</b>	100%
<b>Saturation concentration</b>	No information available.
<b>Critical temperature</b>	No information available.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 1080 g/l.
<b>Heat of vaporization (at boiling point), cal/g (Btu/lb)</b>	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	The following materials may react with the product: Strong alkalis.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Will not polymerise.
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### 10.4. Conditions to avoid

<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.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Alkali metals. Alkaline earth metals. Powdered metal.
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## HEAVY-DUTY DEGREASER, AEROSOL

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** 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

#### 11.1. Information on toxicological effects

##### Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 19.05

**Inhalation** Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.

**Ingestion** May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

**Skin contact** Product has a defatting effect on skin. May cause allergic contact eczema.

**Eye contact** May cause temporary eye irritation.

**Medical symptoms** 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

**Other health effects** There is no evidence that the product can cause cancer.

**Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 7,902.0

**Species** Rat

**ATE oral (mg/kg)** 7,902.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 5,000.0

**Species** Rat

**ATE dermal (mg/kg)** 5,000.0

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)** 11.0

**Skin corrosion/irritation**

**Skin corrosion/irritation** Prolonged and frequent contact may cause redness and irritation.

**Animal data** Slightly irritating. Rabbit

**Serious eye damage/irritation**

**Serious eye damage/irritation** Supplier's information. Rabbit 500 mg 24 hours Causes mild skin irritation.

## HEAVY-DUTY DEGREASER, AEROSOL

### Respiratory sensitisation

**Respiratory sensitisation** No specific test data are available.

### Skin sensitisation

**Skin sensitisation** No specific test data are available.

### 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

### HFC-134a Tetrafluoroethane

**Other health effects** There is no evidence that the product can cause cancer.

### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> gases ppmV)** 567,000.0

**Species** Rat

**ATE inhalation (gases ppm)** 567,000.0

**Inhalation** Vapours irritate the respiratory system. May cause coughing and difficulties in breathing.

**Ingestion** May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

**Skin contact** May cause allergic contact eczema. Contact with liquid form may cause frostbite.

**Eye contact** May cause temporary eye irritation.

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

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 5,000.0

**Species** Rat

**ATE oral (mg/kg)** 5,000.0

### Acute toxicity - dermal



## HEAVY-DUTY DEGREASER, AEROSOL

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 5,000.0

**Species** Rat

**ATE dermal (mg/kg)** 5,000.0

**Acute toxicity - inhalation**

**Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l)** 114.0

**Species** Rat

**ATE inhalation (vapours mg/l)** 114.0

**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 sensitisation**

**Respiratory sensitisation** Data lacking.

**Skin sensitisation**

**Skin sensitisation** Not sensitising. - Guinea pig: Not sensitising.

**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** Does not contain any substances known to be carcinogenic.

**IARC carcinogenicity** Not listed.

**Reproductive toxicity**

**Reproductive toxicity - fertility** No evidence of reproductive toxicity in animal studies.

**Skin contact** Skin irritation should not occur when used as recommended. May cause defatting of the skin but is not an irritant.

**Eye contact** May cause eye irritation.

**Acute and chronic health hazards** There is no evidence that the product can cause cancer.

### SECTION 12: Ecological information

**Ecological information on ingredients.**

## HEAVY-DUTY DEGREASER, AEROSOL

### 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.

### 12.1. Toxicity

#### 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

### HFC-134a Tetrafluoroethane

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 450 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 980 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

### 12.2. Persistence and degradability

#### Ecological information on ingredients.

### trans-1,2-DICHLOROETHYLENE

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

### 12.3. Bioaccumulative potential

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

**Partition coefficient** No information available.

## HEAVY-DUTY DEGREASER, AEROSOL

### Ecological information on ingredients.

#### trans-1,2-DICHLOROETHYLENE

<b>Bioaccumulative potential</b>	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
<b>Partition coefficient</b>	log Pow: 2.06

#### HFC-134a Tetrafluoroethane

<b>Partition coefficient</b>	Pow: 1.06
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#### 1,1,1,2,2,3,4,5,5,5-decafluoropentane

<b>Bioaccumulative potential</b>	Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.
<b>Partition coefficient</b>	Pow: 2.7

### 12.4. 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.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

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

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>General information</b>	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.
<b>Disposal methods</b>	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

<b>UN No. (IMDG)</b>	1950
<b>UN No. (ICAO)</b>	1950

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** LIMITED QUANTITY

**Proper shipping name (IMDG)** UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

## HEAVY-DUTY DEGREASER, AEROSOL

**Proper shipping name (ICAO)** UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

**Proper shipping name (ADN)** LIMITED QUANTITY

### 14.3. Transport hazard class(es)

**IMDG class** 2.2 LIMITED QUANTITY

**ICAO class/division** 2.2 LIMITED QUANTITY

**ICAO subsidiary risk** N/A

### 14.4. Packing group

**IMDG packing group** N/A

**ICAO packing group** N/A

### 14.5. Environmental hazards

### 14.6. Special precautions for user

**EmS** F-C, S-V

**Emergency Action Code** N/A

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

## SECTION 15: Regulatory information

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

**National regulations** The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

**EU legislation** Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

**Revision comments** NOTE: Lines within the margin indicate significant changes from the previous revision.

**Revision date** 03/06/2021

**Revision** 62

**Supersedes date** 12/03/2018

**SDS number** AEROSOL - HDD

**SDS status** Approved.

**Hazard statements in full** H225 Highly flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
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.