



## SAFETY DATA SHEET

### 5L Super Professional Appliance Descaler C18

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

##### 1.1. Product identifier

Product name	5L Super Professional Appliance Descaler C18
Product number	800-286-0001 C18
Internal identification	D8028
Container size	5L

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

Identified uses	Descaler.
Uses advised against	Not for direct oral consumption in concentrated form. Use only for intended applications.

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

Supplier	Mirius™ A Coventry Group Company Woodhams Road Siskin Drive Coventry CV3 4FX  Coventry Chemicals (Ireland) Limited 4th Floor 8-34 Percy Place Dublin 4 Ireland Tel: +44 (0) 02476 639 739 Fax: +44 (0) 02476 639 717 Email: sales@mirius.com
Contact person	For content of safety data sheet: sds@mirius.com

##### 1.4. Emergency telephone number

Emergency telephone	+44 (0) 1865407333 (Strictly for emergencies only: incidents involving damage to human health and/or the environment)
National emergency telephone number	In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24 Ireland: For information or to report a poisoning incident contact The National Poisons Information Centre (01 8092166)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

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

Physical hazards	Not Classified
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**Health hazards** Eye Irrit. 2 - H319

**Environmental hazards** Not Classified

### 2.2. Label elements

#### Hazard pictograms



**Signal word** Warning

**Hazard statements** H319 Causes serious eye irritation.

**Precautionary statements** P102 Keep out of reach of children.  
 P264 Wash contaminated skin thoroughly after handling.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P501 Dispose of contents/ container in accordance with local regulations.

**Contains** CITRIC ACID ANHYDROUS

**Supplementary precautionary statements** P101 If medical advice is needed, have product container or label at hand.  
 P103 Read label before use.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >0.1% published by the European Chemicals Agency (ECHA) under article 57 of the REACH regulation (as amended). This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>CITRIC ACID ANHYDROUS</b>		<b>10-30%</b>
CAS number: 77-92-9	EC number: 201-069-1	REACH registration number: 01-2119457026-42-XXXX
<b>Classification</b>		
Eye Irrit. 2 - H319		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information** Provide eyewash station.

**Inhalation** Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**Ingestion** Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

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<b>Skin contact</b>	Chemical burns must be treated by a physician. Rinse immediately with plenty of water. Remove contaminated clothing. Continue to rinse for at least 15 minutes and get medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

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

<b>General information</b>	Provide eyewash station.
<b>Inhalation</b>	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.
<b>Ingestion</b>	Unlikely exposure route without abuse. Symptoms will include, Sickness, possible Irritation of GI Tract. A soapy taste may be reported.
<b>Skin contact</b>	Corrosive. Burns can occur. Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	Risk of serious damage to eyes. The product is irritating to eyes and skin. Irritation and redness, followed by blurred vision. Corneal damage.

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

<b>Notes for the doctor</b>	No specific recommendations.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

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

<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.
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### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Control run-off water by containing and keeping it out of sewers and watercourses.
<b>Special protective equipment for firefighters</b>	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

<b>Personal precautions</b>	For personal protection, see Section 8. Treat the spilled material according to the instructions in the clean-up section. Take care as floors and other surfaces may become slippery.
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### 6.2. Environmental precautions

<b>Environmental precautions</b>	Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.
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### 6.4. Reference to other sections

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**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid breathing vapour/spray. Do not mix with other household chemical products. Do not mix with Bleach.

**Advice on general occupational hygiene** Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. Use appropriate hand lotion to prevent defatting and cracking of skin.

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

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store at room temperature. Keep out of the reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### 7.3. Specific end use(s)

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

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### CITRIC ACID ANHYDROUS (CAS: 77-92-9)

**DNEL** Available hazard data do not support the need for a DNEL to be established for other health effects.

**PNEC**

- Fresh water; 0.44 mg/l
- marine water; 0.044 mg/l
- STP; >1000 mg/l
- Sediment (Freshwater); 34.6 mg/kg
- Sediment (Marinewater); 3.46 mg/kg
- Soil; 33.1

#### 8.2. Exposure controls

##### Protective equipment



**Appropriate engineering controls**

Provide 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. Personal protective equipment for eye and face protection should comply with European Standard EN166.

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<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). Neoprene. Nitrile rubber. Polyethylene. To protect hands from chemicals, gloves should comply with European Standard EN374. A break through time of >60 minutes is suggested. Gloves should be inspected regularly for damage.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact. Use appropriate hand lotion to prevent defatting and cracking of skin.
<b>Hygiene measures</b>	Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.
<b>Respiratory protection</b>	Respiratory protection not required.
<b>Environmental exposure controls</b>	Avoid releasing into the environment.

### SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Unperfumed.
<b>Odour threshold</b>	Not applicable.
<b>pH</b>	pH (concentrated solution): 1-2
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	No information available.
<b>Flash point</b>	This product does not sustain combustion. Not determined.
<b>Evaporation rate</b>	Not applicable.
<b>Evaporation factor</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	The product is not flammable.
<b>Other flammability</b>	Not applicable.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	1.035-1.045 @ 20°C
<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Soluble in water.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	Water ~ 1 mPa s @ 20°C

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<b>Explosive properties</b>	There are no chemical groups present in the product that are associated with explosive properties.
<b>Explosive under the influence of a flame</b>	Not considered to be explosive.
<b>Oxidising properties</b>	There are no chemical groups present in the product that are associated with oxidising properties.
<b>Comments</b>	Information given is applicable to the product as supplied.

### 9.2. Other information

<b>Other information</b>	Not relevant.
<b>Refractive index</b>	8.5-9.5
<b>Volatile organic compound</b>	Not applicable.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	Under normal storage conditions this product is stable. Reactions with the following materials may generate heat: Alkalis. Alkali metals. Mixing with hypochlorite bleach based products will produce Toxic Chlorine gas.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Reacts with alkalis and generates heat. Reacts with chlorine/hypochlorite, sulphites, nitrites to produce toxic or corrosive gases. Mixing with Hypochlorite Bleach based products will produce toxic Chlorine gas.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid exposure to high temperatures or direct sunlight. Avoid contact with Bleach and Alkaline materials.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Do not mix with other household chemical products. Avoid contact with hypochlorite bleach products.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Toxicological effects</b>	Information given is based on data of the components and of similar products.
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#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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### Skin corrosion/irritation

**Skin corrosion/irritation** May cause skin irritation.

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

### Respiratory sensitisation

**Respiratory sensitisation** Not sensitising. Based on available data the classification criteria are not met.

### Skin sensitisation

**Skin sensitisation** Not classified. Based on available data the classification criteria are not met.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Does not contain any substances known to be mutagenic.

### Carcinogenicity

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

### Reproductive toxicity

**Reproductive toxicity - fertility** Does not contain any substances known to be toxic to reproduction.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

### General information

This product has low toxicity.

### Inhalation

In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

### Ingestion

May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea.

### Skin contact

Causes severe skin burns and eye damage. Prolonged or repeated exposure may cause the following adverse effects: Irritation. Redness. Dryness and/or cracking. Mild dermatitis, allergic skin rash.

### Eye contact

May cause serious eye damage. Irritating to eyes. Severe irritation, burning, tearing and blurred vision. Corneal damage.

## 11.2 Information on other hazards

### 11.2.1. Endocrine disrupting properties

This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).

### 11.2.2 Other information

None known

### Toxicological information on ingredients.

#### CITRIC ACID ANHYDROUS

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub>)** 5,040.0  
mg/kg)

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**Species** Mouse

**ATE oral (mg/kg)** 5,040.0

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,001.0

**Species** Rat

**ATE dermal (mg/kg)** 2,001.0

## SECTION 12: Ecological information

**Ecotoxicity** There are no data on the ecotoxicity of this product. Not regarded as dangerous for the environment.

### 12.1. Toxicity

**Toxicity** Not considered toxic to fish. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 48 hours: 440 and 760 mg/l, Leuciscus idus (Golden orfe)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 24 hours: 1535 mg/l, Daphnia magna

### 12.2. Persistence and degradability

**Persistence and degradability** The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

**Persistence and degradability** The product is biodegradable.

### 12.3. Bioaccumulative potential

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

**Partition coefficient** Not determined.

### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** log Pow: -1.72 REACH dossier information.

### 12.4. Mobility in soil

**Mobility** The product is water-soluble and may spread in water systems.



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### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

**Mobility** Soluble in water.

### 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. Endocrine disrupting properties

**Endocrine disrupting properties** This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).

### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

### 12.7. Other adverse effects

**Other adverse effects** None known.

### Ecological information on ingredients.

#### CITRIC ACID ANHYDROUS

**Other adverse effects** Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Do not discharge into drains or watercourses or onto the ground.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Normal use solutions are expected to be flushed to sewers. Reuse or recycle products wherever possible.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

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### Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

**Maritime transport in bulk according to IMO instruments** Not applicable.

## SECTION 15: Regulatory information

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

<b>National regulations</b>	<p>The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).</p> <p>EH40/2005 Workplace exposure limits.</p> <p>The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 (SI 2020 No. 1577) (as amended).</p> <p>The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 696) (as amended).</p> <p>The Detergents Regulations 2010 (SI 2010 No. 740) (as amended). The Detergents (Amendment) (EU Exit) Regulations 2019 (SI 2019 No. 612) (as amended). The Detergents (Safeguarding) (Amendment) (EU Exit) Regulations 2019 (SI 2019 No. 671) (as amended). The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 720) (as amended).</p> <p>The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).</p>
<b>EU legislation</b>	<p>Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).</p> <p>Commission Regulation (EU) No 453/2010 of 20 May 2010.</p> <p>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).</p> <p>Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).</p> <p>Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.</p> <p>Commission Regulation (EU) No 2015/830 of 28 May 2015.</p> <p>European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (as amended)</p> <p>European Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended)</p> <p>European Regulation (EC) No 648/2004 on detergents (as amended)</p>
<b>Guidance</b>	<p>Workplace Exposure Limits EH40.</p> <p>COSHH Essentials.</p> <p>ECHA Guidance on the Application of the CLP Criteria.</p> <p>ECHA Guidance on the compilation of safety data sheets.</p> <p>Technical Guidance WM2: Hazardous Waste.</p>

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### 15.2. Chemical safety assessment

No information available.

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	DNEL: Derived No Effect Level. PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision. Note: Finished product SDS take their revision history from the parent bulk liquid SDS. The revision data will show that of the parent liquid. Review with no changes to classification
<b>Revision date</b>	01/12/2022
<b>Revision</b>	2
<b>Supersedes date</b>	31/01/2019
<b>SDS number</b>	22005
<b>Hazard statements in full</b>	H319 Causes serious eye irritation.

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.  
----- END OF SDS -----