

## MATERIAL SAFETY DATA SHEET BAC ISOCLEAN, AEROSOL

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**PRODUCT NAME** BAC ISOCLEAN, AEROSOL  
**PRODUCT NO.** MCC-BAC, MCC-BAC101  
**PRODUCT USE** Cleaning agent.  
**EMERGENCY TELEPHONE** 0032-2-251-95-05 (9 AM - 5 PM, Mon- Fri)  
**IDENTIFICATION No.** UN1950

### 2 HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

FLAMMABLE. Avoid exposing aerosol containers to high temperatures or direct sunlight. Aerosol containers can explode when heated, due to excessive pressure build-up. Colourless liquid. Prolonged or repeated contact leads to drying of skin. The liquid may irritate the skin, the eyes and the respiratory tract. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember. No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation. Keep out of the reach of children.

#### ENVIRONMENT

The product contains volatile, organic compounds which have a photochemical ozone creation potential.

#### PHYSICAL AND CHEMICAL HAZARDS

The product is highly flammable, and explosive vapors/air mixtures may be formed even at normal room temperatures. Aerosol containers can explode when heated, due to excessive pressure build-up.

#### HUMAN HEALTH

See section 11 for additional information on health hazards.

#### POTENTIAL HEALTH EFFECTS

#### GENERAL INFORMATION

No specific health warnings noted.

#### INHALATION

May cause irritation to the respiratory system. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.

#### INGESTION

May cause stomach pain or vomiting.

#### SKIN CONTACT

Product has a defatting effect on skin. May cause skin irritation/eczema.

#### EYE CONTACT

Irritating to eyes.

#### CARCINOGENICITY

This substance has no evidence of carcinogenic properties.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %
HFC-134a Tetrafluoroethane	212-377-0	811-97-2	10-30%
PROPAN-2-OL	200-661-7	67-63-0	60-90%

#### COMPOSITION COMMENTS

The Data Shown is in accordance with the latest EC Directives.

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

#### NOTES TO THE PHYSICIAN

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

## BAC ISOCLEAN, AEROSOL

### INHALATION

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

### INGESTION

DO NOT INDUCE VOMITING! If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Immediately rinse mouth and drink plenty of water (200-300 ml). Do not give victim anything to drink if he is unconscious. Get medical attention immediately!

### SKIN CONTACT

Promptly wash contaminated skin with water. Promptly remove clothing if soaked through and wash the skin with water. Contact physician if irritation continues.

### EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

### SPECIAL FIRE FIGHTING PROCEDURES

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

### UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

### SPECIFIC HAZARDS

Aerosol containers can explode when heated, due to excessive pressure build-up. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember.

### PROTECTIVE MEASURES IN FIRE

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

**AUTO IGNITION TEMPERATURE** 425 C / 797 F  
(°C)

**FLAMMABILITY LIMIT - LOWER(%)** 2.0

**FLAMMABILITY LIMIT - UPPER(%)** 12.0

**FLASH POINT (°C)** 12 C / 53 F TCC (Tag closed cup).

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear approved, tight fitting safety glasses where splashing is probable. Follow precautions for safe handling described in this material safety data sheet. For personal protection, see section 8.

### ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground.

### SPILL CLEAN UP METHODS

Wear necessary protective equipment. If leakage cannot be stopped, evacuate area. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb in vermiculite, dry sand or earth and place into containers.

## 7 HANDLING AND STORAGE

### HANDLING

Keep away from heat, sparks and open flame. Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Keep out of the reach of children.

### STORAGE

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep upright.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

### PROTECTIVE EQUIPMENT

## BAC ISOCLEAN, AEROSOL



### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit

### HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves. Gloves of nitrile rubber, PVA or Viton are recommended.

### EYE PROTECTION

Use eye protection. Wear approved, tight fitting safety glasses where splashing is probable.

### OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

### HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE</b>	Clear liquid.
<b>COLOR</b>	Colourless.
<b>ODOR</b>	Characteristic. Odor of alcohol.
<b>PHYSICAL DATA COMMENTS</b>	Aerosol.
<b>VOLATILITY DESCRIPTION</b>	Volatile Emits vapors, especially during heating.
<b>SOLUBILITY</b>	Soluble in water.
<b>Flammability</b>	Flammable aerosol.
<b>BOILING POINT (°C)</b>	82 - 83 C / 173 - 174 F
<b>BULK DENSITY</b>	0.785 g/cm <sup>3</sup>
<b>VAPOR DENSITY (air=1)</b>	1.82
<b>VAPOR PRESSURE</b>	41 hPa 20 C / 70 F
<b>VOLATILE BY VOL. (%)</b>	100
<b>VISCOSITY</b>	2.43 mPas 20 C / 70 F
<b>FLASH POINT (°C)</b>	12 C / 53 F TCC (Tag closed cup).
<b>VOLATILE ORGANIC CONTENT</b>	785 g/litre

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions.

### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidizing agents. Strong alkalis. Strong mineral acids.

### HAZARDOUS POLYMERISATION

Will not polymerise.

### MATERIALS TO AVOID

Strong oxidizing substances.

### HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Vapors/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11 TOXICOLOGICAL INFORMATION

<b>Name</b>	PROPAN-2-OL
<b>Toxic Dose 1 - LD 50</b>	5045 mg/kg (oral rat)
<b>Toxic Dose 2 - LD 50</b>	3600 mg/kg (oral-mouse)

## BAC ISOCLEAN, AEROSOL

**Toxic Conc. - LC 50** 16,000 ppm/1h (inh-rat)  
**Name** HFC-134a Tetrafluoroethane  
**Toxic Dose 1 - LD 50** >2085 mg/kg (oral rat)  
**Other Health Effects**

This substance has no evidence of carcinogenic properties.

### 12 ECOLOGICAL INFORMATION

#### ECOTOXICITY

The product contains volatile, organic compounds which have a photochemical ozone creation potential.

#### MOBILITY

Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small.

#### BIOACCUMULATION

The product does not contain any substances expected to be bio-accumulating.

#### DEGRADABILITY

The product is easily biodegradable.

<b>Name</b>	PROPAN-2-OL
<b>LC 50, 96 Hrs, Fish mg/l</b>	9,640
<b>EC 50, 48 Hrs, Daphnia, mg/l</b>	5102
<b>IC 50, 72 Hrs, Algae, mg/l</b>	>2,000
<b>Name</b>	HFC-134a Tetrafluoroethane
<b>LC 50, 96 Hrs, Fish mg/l</b>	450
<b>EC 50, 48 Hrs, Daphnia, mg/l</b>	980

### 13 DISPOSAL CONSIDERATIONS

#### WASTE MANAGEMENT

Recover and reclaim or recycle, if practical.

#### DISPOSAL METHODS

Empty containers must not be burned because of explosion hazard. Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

### 14 TRANSPORT INFORMATION



<b>DOT PROPER SHIPPING NAME</b>	AEROSOLS
<b>DOT PROPER SHIPPING NAME</b>	Consumer Commodity ORM-D (IN USA Only)
<b>TDG SHIPPING NAME</b>	AEROSOLS
<b>ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT</b>	No.
<b>IDENTIFICATION No.</b>	UN1950
<b>DOT HAZARD CLASS</b>	2.1
<b>U.S DOT HAZARD LABEL</b>	Flammable Gas or CONSUMER COMMODITY ORM-D
<b>MARKINGS</b>	Flammable Gas or Consumer Commodity ORM-D
<b>UN NO. SEA</b>	UN1950
<b>IMDG CLASS</b>	2.1
<b>IMDG PAGE NO.</b>	94

## BAC ISOCLEAN, AEROSOL

<b>IMDG PACK GR.</b>	N/A
<b>EMS</b>	F-D, S-U
<b>MFAG</b>	See Subsection 4.2 of MFAG.
<b>UN NO. AIR</b>	UN1950
<b>AIR CLASS</b>	2.1
<b>AIR SUB CLASS</b>	N/A
<b>AIR PACK GR.</b>	N/A

### 15 REGULATORY INFORMATION

**INVENTORIES**

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
PROPAN-2-OL	DSL	Yes.						
HFC-134a Tetrafluoroethane	DSL	Yes.						

COMPONENT	TSCA 12(b) Export Notification
HFC-134a Tetrafluoroethane	No.

**SARA (311/312) HAZARD CATEGORIES**

Acute Chronic Fire

**REGULATORY STATUS (US)**

This Product is Hazardous under the OSHA Hazard Communication Standard. TSCA: The ingredients of this product are on the TSCA Inventory. SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

**REGULATORY REFERENCES**

NFPA30 Flammable and Combustible Liquids Code. 29 CFR 1910.1010 Federal Regulations (OSHA Standard).

### WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

**LABEL(S) FOR SUPPLY**



Compressed Gas.



Flammable Liquid.



Materials Causing Other Toxic Effects.

**CONTROLLED PRODUCT CLASSIFICATION**

Canadian WHMIS Classification A B2 D2 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

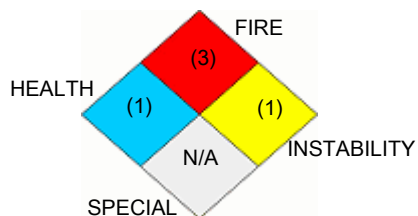
### 16 OTHER INFORMATION

**HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

HEALTH	1	1
FLAMMABILITY	3	
PHYSICAL	1	
PERSONAL PROTECTION	upervisor	

## BAC ISOCLEAN, AEROSOL

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



### REVISION COMMENTS

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

**REVISION DATE** 01/23/2012

**VERSION No.** 4

### SAFETY DATA SHEET STATUS

Approved.

**DATE** 23, January 2012

### DISCLAIMER

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 o