



SAFETY DATA SHEET

BAC IPA-BASED FLUX REMOVER- ISOCLEAN, AEROSOL

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name BAC IPA-BASED FLUX REMOVER- ISOCLEAN, AEROSOL
Product number MCC-BAC, MCC-BAC101
Synonyms; trade names "BAC - ISOCLEAN, DEFLUXER"

Recommended use of the chemical and restrictions on use

Application Cleaning agent.
Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier MICROCARE LLC
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
 Fax: +1 860-893-1930
 techsupport@microcare.com

Emergency telephone number

Emergency telephone CHEMTREC 1-800-424-9300 (within the U.S.)
 +1 703-741-5970 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Aerosol 1 - H222 Press. Gas, Compressed - H280

Health hazards Eye Irrit. 2A - H319 STOT SE 3 - H336

Environmental hazards Not Classified

Human health See Section 11 for additional information on health hazards.

Environmental The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

Physicochemical The product is highly flammable. Vapors may form explosive mixtures with air. Aerosol containers can explode when heated, due to excessive pressure build-up.

Label elements

BAC IPA-BASED FLUX REMOVER- ISOCLEAN, AEROSOL**Hazard symbols****Signal word**

Danger

Hazard statements

H222 Extremely flammable aerosol.
 H280 Contains gas under pressure; may explode if heated.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Pressurized container: Do not pierce or burn, even after use
 P261 Avoid breathing spray.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a poison center/ doctor if you feel unwell.
 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.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P410+P403 Protect from sunlight. Store in a well-ventilated place.
 P412 Do not expose to temperatures exceeding 50°C/122°F.
 P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

Safety data sheet available on request. For use in industrial installations only.

Contains

PROPAN-2-OL

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients**Mixtures**

PROPAN-2-OL CAS number: 67-63-0	60-100%
Classification Flam. Liq. 2 - H225 Eye Irrit. 2A - H319 STOT SE 3 - H336	
HFC-134a Tetrafluoroethane CAS number: 811-97-2	10-30%
Classification Press. Gas, Liquefied - H280 Simple Asphyxiant - USH03	

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

Composition comments TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200

Composition

4. First-aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.

Skin Contact Rinse with water.

Eye contact Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

Ingestion Due to the physical nature of this product, it is unlikely that ingestion will occur.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact Irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

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Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Vapors may form explosive mixtures with air.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.
<u>Advice for firefighters</u>	
Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.
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Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.
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Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.
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Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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7. Handling and storage

Precautions for safe handling

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Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapors and spray/mists.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Keep away from oxidizing materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³

Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³

A4

HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): OES 4240 mg/m³

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

No specific hand protection recommended.

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Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.
Environmental exposure controls	Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear liquid.
Color	Colorless.
Odor	Characteristic. Alcoholic.
Odor threshold	Not determined.
Melting point	Not applicable.
Initial boiling point and range	82 - 83°C/173 - 174°F @ 101.3 kPa
Flash point	12°C/54°F Method: Tag closed cup.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.0 %(V) Lower flammable/explosive limit: 2.0 %(V)
Vapor pressure	41 hPa @ 20°C
Vapor density	1.82
Bulk density	0.785 g/cm ³
Solubility(ies)	Soluble in water.
Auto-ignition temperature	425°C/797°F
Viscosity	2.43 mPa s @ 20°C/70°F
Explosive properties	The product is flammable. Heating may generate flammable vapors.
Global Warming Potential (GWP)	
Volatility	100%
Volatile organic compound	This product contains a maximum VOC content of 785 g/litre.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

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Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidizing agents.
Conditions to avoid	Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 3 - H336 May cause drowsiness or dizziness.

Target organs

Central nervous system

Specific target organ toxicity - repeated exposure

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

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Aspiration hazard

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

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

Ingestion

Due to the physical nature of this product, it is unlikely that ingestion will occur.

Skin Contact

Repeated exposure may cause skin dryness or cracking.

Eye contact

Irritating to eyes.

Route of exposure

Ingestion Inhalation Skin and/or eye contact

Target Organs

Central nervous system

Toxicological information on ingredients.

PROPAN-2-OL

Acute toxicity - inhalation

Acute toxicity inhalation 16,000.0
(LC₅₀ vapours mg/l)

ATE inhalation (vapours 16,000.0
mg/l)

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

NTP carcinogenicity Not listed.

OSHA Carcinogenicity Not listed.

HFC-134a Tetrafluoroethane

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

Acute toxicity - inhalation

Acute toxicity inhalation 567,000.0
(LC₅₀ gases ppmV)

Species Rat

ATE inhalation (gases 567,000.0
ppm)

Inhalation

Vapors 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.

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Eye contact May cause temporary eye irritation.

12. Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

PROPAN-2-OL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 9,640 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 5102 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: >2,000 mg/l, Algae

HFC-134a Tetrafluoroethane

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 450 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 980 mg/l, Daphnia magna

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Ecological information on ingredients.

PROPAN-2-OL

Partition coefficient : 0.05

HFC-134a Tetrafluoroethane

Partition coefficient Pow: 1.06

Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

BAC IPA-BASED FLUX REMOVER- ISOCLEAN, AEROSOL

General information	The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents.

14. Transport information

DOT transport notes As supplied, this product is consigned under the Limited Quantities provisions.

UN Number

UN No. (IMDG) 1950

UN No. (ICAO) 1950

UN proper shipping name

Proper shipping name (TDG) LIMITED QUANTITY

Proper shipping name (IMDG) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Proper shipping name (ICAO) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Proper shipping name (DOT) LIMITED QUANTITY

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Transport in bulk according to Not applicable. No information required.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

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CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

PROPAN-2-OL

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

PROPAN-2-OL

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

PROPAN-2-OL

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

PROPAN-2-OL

Minnesota "Right To Know" List

All the ingredients are listed or exempt.

PROPAN-2-OL

Present.

HFC-134a Tetrafluoroethane

Present.

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

PROPAN-2-OL

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

PROPAN-2-OL

Inventories

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US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

Philippines - PICCS

PROPAN-2-OL

Yes

16. Other information

Abbreviations and acronyms used in the safety data sheet	<p>TDG: The transport of dangerous goods act</p> <p>IATA: International air transport association.</p> <p>ICAO: Technical instructions for the safe transport of dangerous goods by air.</p> <p>IMDG: International maritime dangerous goods.</p> <p>CAS: Chemical abstracts service.</p> <p>ATE: Acute toxicity estimate.</p> <p>LC₅₀: Lethal concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal dose to 50% of a test population (median lethal dose).</p> <p>EC₅₀: 50% of maximal effective concentration.</p> <p>PBT: Persistent, bioaccumulative and toxic substance.</p> <p>vPvB: Very persistent and very bioaccumulative.</p>
Classification abbreviations and acronyms	<p>Aerosol = Aerosol</p> <p>Eye Irrit. = Eye irritation</p> <p>STOT SE = Specific target organ toxicity-single exposure</p>
Training advice	Only trained personnel should use this material.
Revision date	9/2/2020
Revision	48
Supersedes date	1/24/2019
SDS No.	AEROSOL - BAC
SDS status	Approved.
Hazard statements in full	<p>H222 Extremely flammable aerosol.</p> <p>H225 Highly flammable liquid and vapor.</p> <p>H280 Contains gas under pressure; may explode if heated.</p> <p>H319 Causes serious eye irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>USH03 May displace oxygen and cause rapid suffocation</p>

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.