SAFETY DATA SHEET
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

1. Identification

Product identifier
Product name BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK
Product number MCC-BACG, MCC-BACP, MCC-BACD, MCC-BACL, MCC-BACGL, MCC-BACGG
Synonyms; trade names BACG, BACP, BACD, 4722, 4724, 4725, BAC-ISOPROPYL ALCOHOL, BULK

Recommended use of the chemical and restrictions on use
Application Cleaning agent.

Details of the supplier of the safety data sheet
Supplier MicroCare Corporation
Manufacturer MICROCARE CORPORATION
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: +1 860-827-0626
Fax: +1 860-827-8105
techsupport@microcare.com

Emergency telephone number
Emergency telephone CHEMTREC (800) 424-9300

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. Liq. 2 - H225
Health hazards Eye Irrit. 2A - H319 STOT SE 3 - H336

Physicochemical The product is highly flammable. Vapors may form explosive mixtures with air.

Label elements
Pictogram
Signal word Danger
Hazard statements H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P240 Ground/ bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing vapor/ spray.
P271 Use only outdoors or in a well-ventilated area.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a poison center/ doctor if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
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

PROПАН-2-OL

Other hazards

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

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>PROПАН-2-OL</th>
<th>60-100%</th>
</tr>
</thead>
</table>

| CAS number: 67-63-0 |

Classification

Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H336

The Full Text for all Hazard Statements are 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

4. First-aid measures

Description of first aid measures

General information
The product is flammable. CAUTION! First aid personnel must be aware of own risk during rescue! Move affected person to fresh air at once. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention if any discomfort continues.

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

Ingestion
Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.

Skin Contact
Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

Eye contact
Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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
Vapours may cause drowsiness and dizziness. Headache. Irritation of nose, throat and airway.

Ingestion
Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.

Skin contact
Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause skin irritation/eczema.

Eye contact
May cause temporary eye irritation. Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Indication of immediate medical attention and special treatment needed

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

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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

Specific hazards
The product is flammable. Heating may generate flammable vapors. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Oxides of carbon.

Advice for firefighters
Protective actions during firefighting
Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

Special protective equipment for firefighters
Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation.

Environmental precautions
Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.
Methods and material for containment and cleaning up

Methods for cleaning up
Warn everybody of potential hazards and evacuate if necessary. If leakage cannot be stopped, evacuate area. 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. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely.

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

7. Handling and storage

Precautions for safe handling
Usage precautions
Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Storage tanks and other containers must be grounded. Static electricity and formation of sparks must be prevented. Ground and bond containers when transferring material.

Conditions for safe storage, Including any incompatibilities
Storage precautions
Store in tightly-closed, original container. Keep container dry. Ground container and transfer equipment to eliminate sparks from static electricity. Do not store near heat sources or expose to high temperatures.

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

Usage description
Cleaning agent.

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

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
OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A4 = Not Classifiable as a Human Carcinogen.

Ingredient comments
WEL = Workplace Exposure Limits

Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation.
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

**Eye/face protection**

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. 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. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.

**Other skin and body protection**

Not considered to be a significant hazard due to the small quantities used. Wear apron or protective clothing in case of contact.

**Hygiene measures**

Do not smoke in work area. Wash hands 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.

**Respiratory protection**

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

### 9. Physical and Chemical Properties

**Information on basic physical and chemical properties**

**Appearance**

Clear liquid.

**Color**

Colorless.

**Odor**

Characteristic. Alcoholic.

**Odor threshold**

No information available.

**pH**

Not applicable.

**Melting point**

Not relevant.

**Initial boiling point and range**

82 - 83°C/179 - 182°F @ 101.3 kPa

**Flash point**

12°C/54°F TCC (Tag closed cup).

**Evaporation rate**

2 (butyl acetate = 1)

**Evaporation factor**

No information available.

**Flammability (solid, gas)**

Not applicable.

**Upper/lower flammability or explosive limits**

Upper flammable/explosive limit: 12.0 Lower flammable/explosive limit: 2.0

**Vapor pressure**

41 hPa @ 20°C

**Vapor density**

1.82

**Relative density**

0.785 g/cm3 @ 20°C

**Bulk density**

Not applicable.

**Solubility(ies)**

Completely soluble in water.

**Partition coefficient**

No information available.

**Auto-ignition temperature**

399°C/750.2°F

**Decomposition Temperature**

No information available.

**Viscosity**

2.43 mPa s @ 20°C
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<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive index</td>
<td>No information available.</td>
</tr>
<tr>
<td>Particle size</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available.</td>
</tr>
<tr>
<td>Volatility</td>
<td>100%</td>
</tr>
<tr>
<td>Saturation concentration</td>
<td>No information available.</td>
</tr>
<tr>
<td>Critical temperature</td>
<td>No information available.</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>This product contains a maximum VOC content of 785 g/litre.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>There are no known reactivity hazards associated with this product.</td>
</tr>
<tr>
<td>Stability</td>
<td>Stable at normal ambient temperatures.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Will not polymerize.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Strong oxidizing agents. Strong alkalis. Strong mineral acids.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Strong oxidizing agents.</td>
</tr>
</tbody>
</table>

11. Toxicological information

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on toxicological effects</td>
<td>There is no evidence that the product can cause cancer.</td>
</tr>
<tr>
<td>Acute toxicity - oral</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity oral (LD₅₀ mg/kg)</td>
<td>5,050.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE oral (mg/kg)</td>
<td>5,050.0</td>
</tr>
<tr>
<td>Acute toxicity - dermal</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity dermal (LD₅₀ mg/kg)</td>
<td>12,800.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>12,800.0</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause respiratory system irritation. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Substance may be harmful if swallowed. May cause nausea, headache, dizziness and intoxication. May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhea.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Product has a defatting effect on skin. May cause skin irritation/eczema.</td>
</tr>
</tbody>
</table>
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

Eye contact
Irritating to eyes. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

Acute and chronic health hazards
Keep out of the reach of children.

Toxicological information on ingredients.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Acute toxicity - oral</th>
<th>Acute toxicity - dermal</th>
<th>Acute toxicity - inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute toxicity oral (LD₅₀ mg/kg)</td>
<td>Acute toxicity dermal (LD₅₀ mg/kg)</td>
<td>Acute toxicity inhalation (LC₅₀ vapours mg/l)</td>
</tr>
<tr>
<td>PROPAN-2-OL</td>
<td>5,800.0</td>
<td>13,000.0</td>
<td>16,000.0</td>
</tr>
<tr>
<td></td>
<td>Species Rat</td>
<td>Species Rabbit</td>
<td>Species Rat</td>
</tr>
<tr>
<td></td>
<td>ATE oral (mg/kg) 5,800.0</td>
<td>ATE dermal (mg/kg) 13,000.0</td>
<td>ATE Inhalation (vapours mg/l) 16,000.0</td>
</tr>
</tbody>
</table>

Carcinogenicity
IARC carcinogenicity IARC Group 3  Not classifiable as to its carcinogenicity to humans.
NTP carcinogenicity Not listed.
OSHA Carcinogenicity Not listed.

12. Ecological Information

Toxicity

Ecological information on ingredients.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Acute toxicity - fish</th>
<th>Acute toxicity - aquatic invertebrates</th>
<th>Acute toxicity - aquatic plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPAN-2-OL</td>
<td>LC₅₀, 96 hours: 9,640 mg/l, Fish</td>
<td>EC₅₀, 48 hours: 5102 mg/l, Daphnia magna</td>
<td>IC₅₀, 72 hours: &gt;2,000 mg/l, Algae</td>
</tr>
</tbody>
</table>

Persistence and degradability
The product is readily biodegradable.
BAC  IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

Bioaccumulative potential

Bio-Accumulative Potential
The product does not contain any substances expected to be bioaccumulating.

Partition coefficient
No information available.

Mobility in soil

Mobility
The product is soluble in water.

Results of PBT and vPvB assessment

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

Other adverse effects

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

13. Disposal considerations

Waste treatment methods

General information
Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste is suitable for incineration. When handling waste, the safety precautions applying to handling of the product should be considered.

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

14. Transport information

UN Number

UN No. (DOT) UN1219
UN No. (TDG) UN1219
UN No. (IMDG) UN1219
UN No. (ICAO) UN1219

UN proper shipping name

Proper shipping name (DOT) ISOPROPANOL
Proper shipping name (TDG) ISOPROPANOL
Proper shipping name (IMDG) ISOPROPANOL
Proper shipping name (ICAO) ISOPROPANOL

Transport hazard class(es)

DOT hazard class 3
DOT hazard label Flammable Liquid
TDG class 3
IMDG Class 3
ICAO class/division 3
BAC  IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

Transport labels

![Fire symbol]

Packing group

<table>
<thead>
<tr>
<th>DOT pack group</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG Packing Group</td>
<td>II</td>
</tr>
<tr>
<td>IMDG packing group</td>
<td>II</td>
</tr>
<tr>
<td>ICAO packing group</td>
<td>II</td>
</tr>
</tbody>
</table>

Environmental hazards

Environmentally Hazardous Substance No.

Special precautions for user

EmS F-E, S-D

Transport in bulk according to Not relevant. 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
Not listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

SARA 313 Emission Reporting
Not listed.

CAA Accidental Release Prevention
Not listed.

SARA (311/312) Hazard Categories
Acute
Chronic
Fire

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
Not listed.

California Air Toxics "Hot Spots" (A-I)
BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

PROPN-2-OL
Present.

California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances
PROPN-2-OL
Present.

Massachusetts "Right To Know" List
PROPN-2-OL
Present.

Rhode Island "Right To Know" List
PROPN-2-OL
Present.

Minnesota "Right To Know" List
PROPN-2-OL
Present.

New Jersey "Right To Know" List
PROPN-2-OL
Present.

Pennsylvania "Right To Know" List
PROPN-2-OL
Present.

16. Other information

<table>
<thead>
<tr>
<th>Revision comments</th>
<th>NOTE: Lines within the margin indicate significant changes from the previous revision.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>2/12/2016</td>
</tr>
<tr>
<td>Revision</td>
<td>18</td>
</tr>
<tr>
<td>Supersedes date</td>
<td>2/11/2016</td>
</tr>
<tr>
<td>SDS No.</td>
<td>BULK - BAC</td>
</tr>
<tr>
<td>SDS status</td>
<td>Approved</td>
</tr>
</tbody>
</table>
| Hazard statements in full | H225 Highly flammable liquid and vapor.  
                        | H319 Causes serious eye irritation.  
                        | H336 May cause drowsiness or dizziness.                                              |
| NFPA - health hazard | Irritation, minor residual injury. (1)                                               |
| NFPA - flammability hazard | Ignites easily. (3)                                      |
| NFPA - instability hazard | Normally stable. (0)                                                                 |

10/11
## BAC IPA-BASED FLUX REMOVER-ISOCLEAN, BULK

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA - special hazard</td>
<td>N/A</td>
</tr>
<tr>
<td>ACA HMIS Health rating.</td>
<td>Slight Hazard. (1)</td>
</tr>
<tr>
<td>ACA HMIS Flammability rating.</td>
<td>Ignites easily. (3)</td>
</tr>
<tr>
<td>ACA HMIS Physical hazard rating.</td>
<td>Normally stable. (0)</td>
</tr>
<tr>
<td>ACA HMIS Personal protection rating.</td>
<td>A</td>
</tr>
</tbody>
</table>

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.