SAFETY DATA SHEET
CCA SPECIALTY DEFLUXING SOLVENT

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

1.1. Product identifier
Product name: CCA SPECIALTY DEFLUXING SOLVENT
Product number: MCC-CCAL, MCC-CCAGG, MCC-CCAHG, MCC-CCAP, MCC-CCAD, MCC-CCAGL, MCC-CCAG, MCC-CCAHGG
Synonyms; trade names: MCC-CCAL (2.5lb - Liter); MCC-CCAG (10 lb -1 Gallon Pail); MCC-CCAHG (10 lb -1 Glass Gallon); MCC-CCAP (50 lb - 5 Gallon Pail); MCC-CCAD (500 lb- 55 Gallon Drum)

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

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

1.4. Emergency telephone number
Emergency telephone: CHEMTREC UK (London) +(44)-870-8200418 +1 703-741-5970 (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: Not Classified
Environmental hazards: Aquatic Chronic 3 - H412

Human health: See Section 11 for additional information on health hazards. May be slightly irritating to eyes. Splashes in the eyes may cause redness and irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
CCA SPECIALTY DEFLUXING SOLVENT

Physicochemical
Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers.

2.2. Label elements
Hazard statements
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P273 Avoid release to the environment.
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.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>3.2. Mixtures</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>trans-DICHLOROETHYLENE</strong></td>
<td></td>
</tr>
<tr>
<td>CAS number: 156-60-5</td>
<td></td>
</tr>
<tr>
<td>EC number: 205-860-2</td>
<td></td>
</tr>
<tr>
<td>REACH registration number: 05-2114285321-54-0000</td>
<td></td>
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<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td></td>
</tr>
<tr>
<td>Acute Tox. 4 - H302</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3 - H412</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.2. Mixtures</th>
<th>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1,1,2,2,3,4,5,5-decafluoropentane</strong></td>
<td></td>
</tr>
<tr>
<td>CAS number: 138495-42-8</td>
<td></td>
</tr>
<tr>
<td>EC number: 420-640-8</td>
<td></td>
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<tr>
<td>REACH registration number: 01-2119446695-28-0000</td>
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<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 3 - H412</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.2. Mixtures</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1,1,3-PENTAFUOROBUTANE</strong></td>
<td></td>
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<tr>
<td>CAS number: 406-58-6</td>
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<tr>
<td>EC number: 430-250-1</td>
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<tr>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td></td>
</tr>
</tbody>
</table>

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.

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
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. Keep out of the reach of children.
CCA SPECIALTY DEFLUXING SOLVENT

Inhalation
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.

Ingestion
Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Consult a physician for specific advice.

Skin contact
Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.

Eye contact
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

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

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. Closed containers can burst violently when heated, due to excess pressure build-up.

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

5.3. Advice for firefighters
Protective actions during firefighting
Containers close to fire should be removed or cooled with water.

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
Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground. Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage with a shovel and broom, or similar and reuse, if possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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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.

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. Keep out of the reach of children.

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-DICHLOROETHYLENE

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

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

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

Long-term exposure limit (8-hour TWA): SUP 200 ppm

ACGIH = American Conference of Governmental Industrial Hygienists.

Additional Occupational Exposure Limits

Ingredient comments ACGIH = US Standard. WEL = Workplace Exposure Limits

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. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

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.
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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.

### SECTION 9: Physical and Chemical Properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Water-white</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight. Ether</td>
</tr>
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<td>Odour threshold</td>
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<tr>
<td>pH</td>
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</tr>
<tr>
<td>Melting point</td>
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<tr>
<td>Initial boiling point and range</td>
<td>37°C/99°F @ unspecified</td>
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<tr>
<td>Flash point</td>
<td>The product is not flammable.</td>
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<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Evaporation factor</td>
<td>No information available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper/lower flammability or</td>
<td>Upper flammable/explosive limit: 9.0 %(V) Lower flammable/explosive limit: 7.5 %(V)</td>
</tr>
<tr>
<td>explosive limits</td>
<td></td>
</tr>
<tr>
<td>Other flammability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>65.1 kPa @ unspecified°C</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.35</td>
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<tr>
<td>Bulk density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available.</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>No information available.</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
<td>No information available.</td>
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<tr>
<td>Explosive properties</td>
<td>No information available.</td>
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<tr>
<td>Explosive under the influence of a</td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td>flame</td>
<td></td>
</tr>
</tbody>
</table>

**9.2. Other information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive index</td>
<td>No information available.</td>
</tr>
<tr>
<td>Particle size</td>
<td>No information available.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
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Volutility 100%
Saturation concentration No information available.
Critical temperature No information available.
Volatile organic compound No information available.
UDF Phrase 1 The product is not flammable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid
Conditions to avoid Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.

10.5. Incompatible materials
Materials to avoid Alkali metals. Alkaline earth metals. Powdered metal.

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 (CO2). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Other health effects There is no evidence that the product can cause cancer.
Acute toxicity - oral ATE oral (mg/kg) 3,166.67

Inhalation Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. Headache. Dizziness.
Ingestion Harmful if swallowed. Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.
Skin contact Liquid may irritate skin.
Eye contact Irritating to eyes.
Route of entry Skin and/or eye contact Ingestion. Inhalation
Target organs Eyes Respiratory system, lungs Skin
Medical symptoms Product has a defatting effect on skin. May cause allergic contact eczema. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.
CCA SPECIALTY DEFLUXING SOLVENT

Toxicological information on ingredients.

### trans-DICHLOROETHYLENE

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Other health effects</strong></td>
<td>There is no evidence that the product can cause cancer.</td>
</tr>
<tr>
<td><strong>Acute toxicity - oral</strong></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity oral (LD₅₀ mg/kg)</td>
<td>1,235.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE oral (mg/kg)</td>
<td>1,235.0</td>
</tr>
<tr>
<td><strong>Acute toxicity - dermal</strong></td>
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</tr>
<tr>
<td>Acute toxicity dermal (LD₅₀ mg/kg)</td>
<td>5,000.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>5,000.0</td>
</tr>
<tr>
<td><strong>Acute toxicity - inhalation</strong></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity inhalation (LC₅₀ vapours mg/l)</td>
<td>24,100.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>24,100.0</td>
</tr>
</tbody>
</table>

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute toxicity - oral</strong></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity oral (LD₅₀ mg/kg)</td>
<td>5,000.0</td>
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<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE oral (mg/kg)</td>
<td>5,000.0</td>
</tr>
<tr>
<td><strong>Acute toxicity - dermal</strong></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity dermal (LD₅₀ mg/kg)</td>
<td>5,000.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE dermal (mg/kg)</td>
<td>5,000.0</td>
</tr>
<tr>
<td><strong>Acute toxicity - inhalation</strong></td>
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</tr>
<tr>
<td>Acute toxicity inhalation (LC₅₀ vapours mg/l)</td>
<td>114.0</td>
</tr>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>ATE inhalation (vapours mg/l)</td>
<td>114.0</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td></td>
</tr>
<tr>
<td>Animal data</td>
<td>Not irritating. Rabbit</td>
</tr>
</tbody>
</table>
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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
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.

1,1,1,3,3-PENTAFLUOROBUTANE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)
2,000.0

Species
Rat

ATE oral (mg/kg)
2,000.0

Acute toxicity - Inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)
100,000.0

Species
Rat

ATE inhalation (vapours mg/l)
100,000.0

Specific target organ toxicity - single exposure

STOT - single exposure
LOAEL 75100 ppm, Inhalation,
CCA SPECIALTY DEFLUXING SOLVENT

Specific target organ toxicity - repeated exposure
STOT - repeated exposure  NOAEC 6 mg/l, Inhalation, Rat
Target organs  Liver Kidneys

SECTION 12: Ecological Information

Ecotoxicity  There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Ecotoxicity  Low acute toxicity to aquatic organisms.

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
Toxicity  No data available.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Acute toxicity - fish  LC₅₀, 96 hours: 1350 mg/l, Algae
Acute toxicity - aquatic invertebrates  EC₅₀, 48 hours: 220 mg/l, Daphnia magna

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

Acute toxicity - fish  LC₅₀, 96 hours: 13.9 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates  LC₅₀, 48 hours: 11.7 mg/l, Daphnia magna
Acute toxicity - aquatic plants  EC₅₀, 72 hours: >120 mg/l, Fish

12.2. Persistence and degradability
Persistence and degradation  There are no data on the degradability of this product.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Persistence and degradability  No data available.

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

Persistence and degradability  The product is not expected to be biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential  No data available on bioaccumulation.
CCA SPECIALTY DEFLUXING SOLVENT

Partition coefficient 
No information available.

Ecological information on ingredients.

trans-DICHLOROETHYLENE

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

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

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information 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.

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

Waste class Aucune information disponible

SECTION 14: Transport information

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

14.1. UN number
Not applicable. No information required.

14.2. UN proper shipping name

Proper shipping name Liquid Cleaning Compound (ADR/RID)

Proper shipping name (IMDG) Liquid Cleaning Compound
CCA SPECIALTY DEFLUXING SOLVENT

Proper shipping name (ICAO)  Liquid Cleaning Compound
Proper shipping name (ADN)  Liquid Cleaning Compound

14.3. Transport hazard class(es)
Not applicable. No information required.

Transport labels
No transport warning sign required.

14.4. Packing group
No information required. Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

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
No information required.

SECTION 15: Regulatory information

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


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  17/04/2017
Revision  28
Supersedes date  17/04/2017
SDS number  BULK - CCA
SDS status  Approved.

Hazard statements in full  H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
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.