

SAFETY DATA SHEET SPR - HEAVY DUTY FLUX REMOVER - SUPRCLEAN, AEROSOL

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name SPR - HEAVY DUTY FLUX REMOVER - SUPRCLEAN, AEROSOL

Product number MCC-SPR, MCC-SPR101, MCC-SPR12Y

Synonyms; trade names "SPR - SUPRCLEAN Nonflammable Flux Remover", MCC-CBCSK

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: +1 800-638-0125, +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 Aerosol 3 - H229

Health hazards Not Classified

Environmental hazards Aquatic Chronic 3 - H412

Human health Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Mild

dermatitis, allergic skin rash.

Environmental The product contains a substance which is harmful to aquatic organisms and which may

cause long-term adverse effects in the aquatic environment.

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

containers. Not considered to be a significant hazard due to the small quantities used. Gas or

vapour displaces oxygen available for breathing (asphyxiant).

2.2. Label elements

Signal word Warning

Hazard statements H229 Pressurised container: may burst if heated

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

EUH210 Safety data sheet available on request.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label

information RCH001a For use in industrial installations only.

statements

Supplementary precautionary P273 Avoid release to the environment.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

trans-DICHLOROETHYLENE 30-60%

CAS number: 156-60-5 EC number: 205-860-2 REACH registration number: 05-

2114285321-54-0000

Classification

Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Aquatic Chronic 3 - H412

10-30% 1,1,1,2,2,3,4,5,5,5-decafluoropentane

CAS number: 138495-42-8 EC number: 420-640-8 REACH registration number: 01-

2119446695-28-0000

Classification

Aquatic Chronic 3 - H412

HFC-134a Tetrafluoroethane 10-30%

CAS number: 811-97-2 EC number: 212-377-0 REACH registration number: 05-

2114285300-58-0000

Classification

Press. Gas, Liquefied - H280

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ETHANOL 1-5%

CAS number: 64-17-5 EC number: 200-578-6 REACH registration number: 05-

2114285309-40-0000

Classification

Flam. Liq. 2 - H225

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.

Composition

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.

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.

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.

Inhalation Vapours may cause headache, fatigue, dizziness and nausea. Difficulty in breathing. Upper

respiratory irritation. Severe irritation of nose and throat.

Ingestion May cause stomach pain or vomiting. Drowsiness, discrientation, vertigo.

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

Eye contact Irritation of eyes and mucous membranes. Irritating to eyes. Symptoms following

overexposure may include the following: Redness. Pain.

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. Aerosol containers can explode when heated, due to excessive pressure build-up.

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Hazardous combustion

products

Heating may generate the following products: Toxic and corrosive gases or vapours. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting

Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Bursting

aerosol containers may be propelled from a fire at high speed.

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

Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Personal precautions

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 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.

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

Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and Usage precautions

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

7.2. Conditions for safe storage, including any incompatibilities

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

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

No information available that would effect occupational exposure limit values.

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HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 4240 mg/m³

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³ ACGIH = American Conference of Governmental Industrial Hygienists. WEL = Workplace Exposure Limit

Additional Occupational

Exposure Limits

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

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.

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.

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.

Wear self-contained breathing apparatus with full facepiece.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Clear liquid. Aerosol.

Colour Colourless. Odour Slight, Ether.

Odour threshold No information available.

pН No information available.

Melting point No information available.

41°C/106°F @ 101.3 kPa Initial boiling point and range

Flash point The product is not flammable.

Evaporation rate No information available. **Evaporation factor** No information available.

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Upper/lower flammability or

explosive limits

Upper flammable/explosive limit: 14.4 %(V) Lower flammable/explosive limit: 5.0 %(V)

Other flammability The product is not flammable. Aerosol ignition distance: none at 0.0 cm

Vapour pressure 37.9 kPa @ 25°C

Vapour density 3.4

Relative density 1.27

Bulk density No information available.

Solubility(ies) .4 g/l water @ 25°C

Partition coefficient No information available.

Auto-ignition temperature No information available.

Decomposition Temperature No information available.

Viscosity No information available.

Explosive properties No information available.

Oxidising properties Not known.

Comments Aerosol

9.2. Other information

Refractive index No information available.

Particle size No information available.

Molecular weight Not applicable.

Volatility 100%

Saturation concentration No information available.

Critical temperature No information available.

Volatile organic compound This product contains a maximum VOC content of 1080 g/l.

UDF Phrase 1 The product is not flammable.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Strong alkalis.

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.

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10.6. Hazardous decomposition products

Hazardous decomposition

Heating may generate the following products: Toxic and corrosive gases or vapours.

products

Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO2). Carbon monoxide

(CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 2,245.45

Inhalation

Vapours may irritate throat/respiratory system. A single exposure may cause the following

adverse effects: Coughing. Difficulty in breathing.

Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and

intoxication.

Skin contact

Product has a defatting effect on skin. May cause allergic contact eczema.

Eye contact

May cause temporary eye irritation.

Medical symptoms

Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following

overexposure may include the following: Headache. Fatigue. Nausea, vomiting.

Toxicological information on ingredients.

trans-DICHLOROETHYLENE

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

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

Acute toxicity - oral

Acute toxicity oral (LD50

mg/kg)

5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,000.0

mg/kg)

Species Rat

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation 114.0

(LC₅₀ vapours mg/l)

Species Rat

ATE inhalation (vapours

mg/l)

114.0

Skin corrosion/irritation

Animal data Not irritating. Rabbit

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Human skin model test Data lacking.

Extreme pH Not applicable. Not corrosive to skin.

Serious eye damage/irritation

Serious eye

Not irritating. Rabbit

damage/irritation

Respiratory sensitisation

Respiratory sensitisation Data lacking.

Skin sensitisation

Skin sensitisation Not sensitising. - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitroThis 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.

HFC-134a Tetrafluoroethane

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

Acute toxicity - inhalation

Acute toxicity inhalation

(LC₅₀ gases ppmV)

567,000.0

Species Rat

ATE inhalation (gases

ppm)

567,000.0

Inhalation Vapours 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.

ETHANOL

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)

20,000.0

ATE inhalation (vapours

20,000.0

mg/l)

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

SECTION 12: Ecological Information

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 Very toxic to aquatic organisms.

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

HFC-134a Tetrafluoroethane

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

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: 980 mg/l, Daphnia magna

ETHANOL

Acute toxicity - fish LC₅₀, 96 hours: >10,000 mg/l, Algae

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Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 7,800 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

, 96 hours: 1000 mg/l, Freshwater algae

12.2. Persistence and degradability

Ecological information on ingredients.

ETHANOL

Persistence and degradability

The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

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.

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

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

this product.

Partition coefficient Pow: 2.7

HFC-134a Tetrafluoroethane

Partition coefficient Pow: 1.06

ETHANOL

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient No information available.

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.

ETHANOL

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

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

assessment

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12.6. Other adverse effects

Other adverse effects The product contains a substance or substances that will contribute to global warming

(greenhouse effect).

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 methodsDispose of waste to licensed waste disposal site in accordance with the requirements of the

local Waste Disposal Authority.

SECTION 14: Transport information

General Requirements for marking and labeling of package varies depending on mode of transport. If

uncertain of proper markings and labeling, call MicroCare for assistance.

14.1. UN number

UN No. (IMDG) UN1950

UN No. (ICAO) UN1950

14.2. UN proper shipping name

Proper shipping name

LIMITED QUANTITY

(ADR/RID)

Proper shipping name (IMDG) UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

Proper shipping name (ICAO) UN1950 AEROSOLS, NON-FLAMMABLE, 2.2, LIMITED QUANTITY

Proper shipping name (ADN) LIMITED QUANTITY

14.3. Transport hazard class(es)

ADR/RID label F

IMDG class 2.2 LIMITED QUANTITY

ICAO class/division 2.2 LIMITED QUANTITY

N/A

ICAO subsidiary risk N/A

14.4. Packing group

IMDG packing group

ADR/RID packing group N/A

ICAO packing group N/A

14.5. Environmental hazards

14.6. Special precautions for user

Not applicable.

EmS F-C, S-V

Emergency Action Code N/A

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SPR - HEAVY DUTY FLUX REMOVER - SUPRCLEAN, AEROSOL

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

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

EU legislation 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).

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 13/12/2017

Revision 65

Supersedes date 07/08/2017

SDS number AEROSOL - SPR

SDS status Approved.

Hazard statements in full H225 Highly flammable liquid and vapour.

H229 Pressurised container: may burst if heated

H280 Contains gas under pressure; may explode if heated.

H332 Harmful if inhaled.

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.