



SAFETY DATA SHEET CAFLON RAC

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

1.1. Product identifier

Product name CAFLON RAC

Product number 11717

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Detergent.

1.3. Details of the supplier of the safety data sheet

Supplier Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
sds@univar.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 11717

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED			10-30%
CAS number: 103818-93-5			
Classification Acute Tox. 4 - H302 Eye Irrit. 2 - H319			
POLYALKYLENE GLYCOL			5-10%
CAS number: 9003-11-6			
Classification Not Classified			
CITRIC ACID			5-10%
CAS number: 5949-29-1	EC number: 201-069-1	REACH registration number: 01-2119457026-42-XXXX	
Classification Eye Irrit. 2 - H319			
PROPAN-2-OL			5-10%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-XXXX	
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336			

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	Remove affected person from source of contamination.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Get medical attention. Show this Safety Data Sheet to the medical personnel.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

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

4.2. Most important symptoms and effects, both acute and delayed

Eye contact Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat according to symptoms:

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards Oxides of the following substances: Carbon.

5.3. Advice for firefighters

Protective actions during firefighting Contain and collect extinguishing 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 Wear protective clothing as described in Section 8 of this safety data sheet. In case of spills, beware of slippery floors and surfaces. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid the formation of mists. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/Personal protection

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8.1. Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED (CAS: 103818-93-5)

Ingredient comments No exposure limits known for ingredient(s).

CITRIC ACID (CAS: 5949-29-1)

Ingredient comments No exposure limits known for ingredient(s).

PNEC

- Fresh water; 0.44 mg/l
- marine water; 0.044 mg/l
- Sediment (Freshwater); 7.52 mg/kg
- Sediment (Marinewater); 0.752 mg/kg
- Soil; 29.2 mg/kg

PROPAN-2-OL (CAS: 67-63-0)

DNEL

Industry - Dermal; Long term systemic effects: 888 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 500 mg/m³
 Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 89 mg/m³
 Consumer - Oral; Long term systemic effects: 26 mg/kg/day

PNEC

- Fresh water; 140.9 mg/l
- marine water; 140.9 mg/l
- Intermittent release; 140.9 mg/l
- STP; 2251 mg/l
- Sediment (Freshwater); 552 mg/kg
- Sediment (Marinewater); 552 mg/kg
- Soil; 28 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

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. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374.

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Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Wash promptly if skin becomes contaminated.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Slight alcoholic.
Odour threshold	No information available.
pH	pH (concentrated solution): 2
Melting point	<-10°C
Initial boiling point and range	No information available.
Flash point	48°C Closed cup. The product is non-combustible.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.01 @ 20°C
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	°C
Decomposition Temperature	No information available.
Viscosity	40 cP @ 20°C
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.

9.2. Other information

Other information	Not determined.
Refractive index	No information available.

CAFLON RAC

Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not determined.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Not determined.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of the following substances: Carbon.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	5,000.0
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Skin corrosion/irritation

Skin corrosion/irritation	No information available.
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Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation.
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Respiratory sensitisation

Respiratory sensitisation	No information available.
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Skin sensitisation

Skin sensitisation	No information available.
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Germ cell mutagenicity

Genotoxicity - in vitro	No information available.
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Carcinogenicity

Carcinogenicity	No information available.
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Reproductive toxicity

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Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion May cause discomfort if swallowed.

Skin contact Liquid may irritate skin.

Eye contact Causes serious eye irritation.

Toxicological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Acute toxicity - oral

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 500.0

Skin corrosion/irritation

Animal data No information available.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

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

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 No information available.

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

Ingestion Harmful if swallowed.

Skin contact Liquid may irritate skin.

Eye contact Causes serious eye irritation. Overexposure may cause the following adverse effects: Pain or irritation. Profuse watering of the eyes. Redness.

CITRIC ACID

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 5400 mg/kg, Oral, Mouse

Acute toxicity - dermal

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

Species Rat

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat

Skin corrosion/irritation

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Irritating to eyes.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

CAFLON RAC

Aspiration hazard	Based on available data the classification criteria are not met.
Inhalation	Dust in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Powder may irritate skin.
Eye contact	Irritating to eyes.

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,840.0

Species Rat

Notes (oral LD₅₀) OECD 401

ATE oral (mg/kg) 5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 13,900.0

Species Rabbit

Notes (dermal LD₅₀) OECD 402

ATE dermal (mg/kg) 13,900.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 10,000.0

Species Rat

Notes (inhalation LC₅₀) LC₅₀ (6h) >10000 ppm, Inhalation, Rat OECD 403

Skin corrosion/irritation

Animal data Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vivo No information available.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

CAFLON RAC

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation May cause respiratory system irritation. Vapours may cause drowsiness and dizziness.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact Causes serious eye irritation.

Target organs Kidneys Liver

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

CITRIC ACID

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

PROPAN-2-OL

Ecotoxicity The product is not expected to be toxic to aquatic organisms.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

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

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

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

CAFLON RAC

Toxicity Not considered toxic to fish.

CITRIC ACID

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 440 - 706 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, : 1535 mg/l, Daphnia magna

PROPAN-2-OL

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 48 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 10000 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 7 days: 1800 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Persistence and degradability The product is readily biodegradable. This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

Biodegradation - Degradation 65.9%: 28 days
OECD 301D

CITRIC ACID

Persistence and degradability The product is biodegradable.

Biological oxygen demand 0.526 g O₂/g substance

Chemical oxygen demand 0.728 g O₂/g substance

PROPAN-2-OL

Persistence and degradability The substance is readily biodegradable.

Biological oxygen demand 53 %

12.3. Bioaccumulative potential

CAFLON RAC

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

CITRIC ACID

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient log Pow: -1.8 - -0.2 log Pow: ~ -1.72

PROPAN-2-OL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: 0.05 OECD 107

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Mobility The product is soluble in water.

CITRIC ACID

Mobility The product is soluble in water.

PROPAN-2-OL

Mobility The product is soluble in water.

Surface tension 22.7 mN/m @ 20°C

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.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

CITRIC ACID

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

PROPAN-2-OL

CAFLON RAC

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

Ecological information on ingredients.

ALCOHOLS C9 - 11 ISO RICH ETHOXYLATED, PROPOXYLATED

Other adverse effects Not determined.

CITRIC ACID

Other adverse effects Not determined.

PROPAN-2-OL

Other adverse effects No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste should be treated as controlled waste.

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

SECTION 14: Transport information

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

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

Not applicable.

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 Not applicable.

CAFLON RAC

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

CAFLON RAC

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

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

Revision date

11/04/2019

Version number

1.001

Supersedes date

04/08/2015

SDS number

11717

CAFLON RAC

SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapour. H302 Harmful if swallowed. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Signature	Jitendra Panchal