PAINTS, PRIMERS AND SPECIALISED COATINGS

SAFETY DATA SHEET
201/C264 - VANDALENE (ANTI-CLIMB PAINT) AEROSOL

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

1.1. Product identifier

Product name 201/C264 - VANDALENE (ANTI-CLIMB PAINT) AEROSOL

Product number 201/C264/2/R

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

Identified uses As an anti-climb paint

1.3. Details of the supplier of the safety data sheet

Supplier

COO-VAR
Lockwood Street
Hull
HU2 0HN
+44 (0) 1482 328053(T)
+44 (0) 1482 219266(F)
info@coo-var.co.uk

Contact person Technical Department -, 08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri, as above

1.4. Emergency telephone number

Emergency telephone +44 (0) 1482 328053 Coo-Var (08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri)

SDS No. 11064

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

Health hazards STOT SE 3 - H336 STOT RE 1 - H372 Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) -

Human health Gas or vapour is harmful on prolonged exposure or in high concentration. Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. Deliberately concentrating and inhaling contents of ths container is dangerous and can be fatal.

Environmental The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

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Physicochemical The product is extremely flammable and may ignite in the air at normal temperature and pressure. Explosive vapour/air mixtures may be spontaneously formed. Aerosol containers can explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited. Do nor pierce or burn even after use.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements
H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.

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.
P260 Do not breathe spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
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 EUH066 Repeated exposure may cause skin dryness or cracking.

Contains Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Supplementary precautionary statements
P270 Do not eat, drink or smoke when using this product.
P314 Get medical advice/ attention if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403 Store in a well-ventilated place.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS **30-60%**

CAS number: 68476-85-7 EC number: 270-704-2

Classification
Flam. Gas 1 - H220
Press. Gas (Liq.) - H280

Classification (67/548/EEC or 1999/45/EC)
F+;R12 Carc. Cat. 1;R45 Muta. Cat. 2;R46

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Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)		**10-30%**
CAS number: —	EC number: 919-446-0	REACH registration number: 01-2119458049-33-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226 STOT SE 3 - H336 STOT RE 1 - H372 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Xn;R65. N;R51/53. R10,R66,R67.

ETHANOL		**<1%**
CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01-2119457610-43-xxxx

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319	F;R11

METHANOL		**<1%**
CAS number: 67-56-1	EC number: 200-659-6	

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370	F;R11 T;R23/24/25,R39/23/24/25

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person.

Inhalation If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. DO NOT use solvents or thinners

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

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

Inhalation No specific symptoms known.

Ingestion No specific symptoms known.

Skin contact No specific symptoms known.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards Extremely flammable. Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Containers can burst violently or explode when heated, due to excessive pressure build-up. Containers can burst violently or explode when heated, due to excessive pressure build-up.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Warn firefighters that aerosols are involved.

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 Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Avoid inhalation of vapours.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion.

6.4. Reference to other sections

Reference to other sections The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Do not spray near naked flame or any incandescent material.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Extremely flammable. Keep away from heat, sparks and open flame. Store at moderate temperatures in dry, well ventilated area. Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Do not pierce or burn even after use.

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

8.1. Control parameters

Occupational exposure limits

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³
Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Long-term exposure limit (8-hour TWA): WEL 350 mg/m³

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

METHANOL

Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk) 266 mg/m3(Sk)
Short-term exposure limit (15-minute): WEL 250 ppm(Sk) 333 mg/m3(Sk)
WEL = Workplace Exposure Limit

Ingredient comments SUP = Supplier's recommendation.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

DNEL

Consumer - Oral; Long term systemic effects: 26 mg/kg/day
Consumer - Dermal; Long term systemic effects: 26 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 71 mg/m³
Consumer - Inhalation; Short term systemic effects: 570 mg/m³
Industry - Inhalation; Short term systemic effects: 570 mg/m³
Industry - Inhalation; Long term systemic effects: 330 mg/m³
Industry - Dermal; Long term systemic effects: 44 mg/kg/day

PNEC

No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

ETHANOL (CAS: 64-17-5)

DNEL

Workers - Inhalation; Long term systemic effects: 950 mg/m³
Workers - Inhalation; Short term local effects: 1900 mg/m³
Workers - Dermal; Long term systemic effects: 343 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 114 mg/m³
Consumer - Inhalation; Short term local effects: 950 mg/m³
Consumer - Dermal; Long term systemic effects: 206 mg/kg/day
Consumer - Oral; Long term systemic effects: 87 mg/kg/day

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PNEC

- Fresh water; 0.96 mg/l
- marine water; 0.79 mg/l
- Intermittent release; 2.75 mg/l
- STP; 580 mg/l
- Sediment (Freshwater); 3.6 mg/kg/day
- Sediment (Marinewater); 2.9 mg/kg/day
- Soil; 0.63 mg/kg/day

METHANOL (CAS: 67-56-1)

DNEL

Workers - Dermal; Short term systemic effects: 40 mg/kg/day
Workers - Inhalation; Short term systemic effects: 260 mg/m³
Workers - Inhalation; Short term systemic effects: 40 mg/m³
Workers - Dermal; Long term systemic effects: 40 mg/kg/day
Workers - Inhalation; Long term systemic effects: 260 mg/m³
Workers - Inhalation; Long term local effects: 260 mg/m³
Consumer - Dermal; Short term systemic effects: 8 mg/kg/day
Consumer - Inhalation; Short term systemic effects: 50 mg/m³
Consumer - Oral; Short term systemic effects: 8 mg/kg/day
Consumer - Inhalation; Long term local effects: 50 mg/m³
Consumer - Oral; Long term systemic effects: 8 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 50 mg/m³
Consumer - Dermal; Long term systemic effects: 8 mg/kg/day
Consumer - Inhalation; Short term local effects: 50 mg/m³

PNEC

- Fresh water; 154 mg/l
- marine water; 15.4 mg/l
- Sediment; 570.4 mg/kg
- Soil; 23.5 mg/kg
- STP; 100 mg/l
- Intermittent release; 1540 mg/l

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

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

Personal protection

When using do not smoke.

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. The following protection should be worn: Chemical splash goggles.

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Hand protection	To protect hands from chemicals, gloves should comply with European Standards EN388 and 374. As a general principle, exposure should be managed by means other than the provision of protective gloves. Manufacturer's performance data suggest that the optimum glove for use should be: Wear protective gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.31 mm Permeation breakthrough time according to EN374 - class: (1-6) e.g. minimum 480 mins. Caution: The performance of gloves under actual working conditions can be significantly affected by many factors and the information provided according to EN374 may not accord with what is achieved in practice. We recommend that expert professional advice is sought that takes into account of the work processes and working environment applicable for each task where gloves are to be worn.
Other skin and body protection	Wear appropriate clothing to prevent reasonably probable skin contact.
Hygiene measures	Wash hands after handling. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. 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

Appearance	Aerosol containing a mixture of active ingredients, solvents and propellants.
Colour	Black.
Odour	Organic solvents.
Odour threshold	Not determined.
pH	Technically not feasible.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	< -40°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.8 %
Other flammability	Not determined.
Vapour pressure	Not determined.
Vapour density	heavier than air
Relative density	1.46 @ @ 20°C
Solubility(ies)	Insoluble in water
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	2.1 (Cone and Plate) P @ 25°C

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Explosive properties	Not determined.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not determined.
Comments	Information given is applicable to the major ingredient. 23 Flammable gas

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of <400 g/l.

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	Not applicable.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid	Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information	Deliberately concentrating and inhaling the contents of this container is dangerous and can be fatal.
Inhalation	Irritating to respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact eczema.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.
Acute and chronic health hazards	Arrhythmia, (deviation from normal heart beat). In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Route of exposure	Inhalation Ingestion. Skin and/or eye contact.
Target organs	Eyes Skin Respiratory system, lungs

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Medical symptoms Arrhythmia, (deviation from normal heart beat). Narcotic effect. Vapours may cause drowsiness and dizziness.

Toxicological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Toxicological effects Information given is based on product data, a knowledge of the components and the toxicology of similar products.

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

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.

Specific target organ toxicity - single exposure

STOT - single exposure Gas or vapour is harmful on prolonged exposure or in high concentrations. High concentrations may be fatal.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation May cause respiratory system irritation.

Skin contact Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.

Route of exposure Inhalation Skin and/or eye contact

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg) 15,000.0

Species Rat

Notes (oral LD_{50}) Conclusive data but not sufficient for classification.

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg) 3,400.0

Species Rabbit

Notes (dermal LD_{50}) Conclusive data but not sufficient for classification.

Skin corrosion/irritation

Animal data Erythema/eschar score: Very slight erythema - barely perceptible (1). Oedema score: Very slight oedema - barely perceptible (1). Not irritating.

Extreme pH Not irritating. Not corrosive to skin.

Serious eye damage/irritation

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Serious eye damage/irritation	Not irritating.

Respiratory sensitisation

Respiratory sensitisation	There is evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. Buehler test - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative.
Genotoxicity - in vivo	Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity	NOAEL 300 mg/kg, Oral, Rat There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility	One-generation study - NOAEL >3000 mg/kg/day, Oral, Rat P This substance has no evidence of toxicity to reproduction.
Reproductive toxicity - development	Developmental toxicity: - NOAEC: >300 ppm, Inhalation, Rat Read-across data. This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure	Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
Target organs	Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 1056 mg/kg, Oral, Rat

Aspiration hazard

Aspiration hazard	Kinematic viscosity <= 20.5 mm2/s.

Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	Harmful: may cause lung damage if swallowed. May cause stomach pain or vomiting.
Skin contact	May cause defatting of the skin, but is not an irritant. Not a skin sensitiser.
Eye contact	No specific health hazards known.
Route of exposure	Skin and/or eye contact. Inhalation
Target organs	Central nervous system

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Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	10,470.0

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Species	Rat
ATE oral (mg/kg)	10,470.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	2,100.0
Species	Rabbit
ATE dermal (mg/kg)	2,100.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	51.0
Species	Rat
ATE inhalation (vapours mg/l)	51.0
Carcinogenicity	
IARC carcinogenicity	IARC Group 1 Carcinogenic to humans.

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Acute toxicity - oral	
ATE oral (mg/kg)	100.0
Acute toxicity - inhalation	
ATE inhalation (vapours mg/l)	3.0

SECTION 12: Ecological information

Ecotoxicity The product has not been tested but contains ingredients which are toxic or very toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. During normal use the volatility of the components and the packaging form, pressurised container, make entry into the aquatic environment unlikely, however, do not empty or discharge into drains or watercourses. Ensure container is empty before disposal to prevent contents entering watercourses.

Ecological information on ingredients.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Ecotoxicity Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Toxicity Not regarded as dangerous for the environment.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Toxicity Dangerous for the environment if discharged into watercourses Toxic to aquatic organisms

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Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 10 - 30 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 10 - 22 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 4.6 - 10 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC_{50}, 48 hours: 43.98 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 28 days: 0.13 mg/l, Freshwater fish
Chronic toxicity - aquatic invertebrates	NOEC, < 21 days: 0.28 mg/l, Daphnia magna

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Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 15300 mg/l, Pimephales promelas (Fat-head Minnow) LC_{50}, 96 hours: 13000 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 12340 mg/l, Daphnia magna LC_{80}, 48 hours: 5012 mg/l, Freshwater invertebrates
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 275 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC_{50}, 4 hours: 5800 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 30 days: 245 mg/l,
Chronic toxicity - aquatic invertebrates	NOEC, 10 days: 9.6 mg/l, Freshwater invertebrates

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Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC_{50}, 24 hours: 20803 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 96 hours: 22000 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	IC_{50}, 3 hours: > 1000 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	LOEC, 200 hours: 7900 mg/l, Fish NOEC, 28 days: 446.7 mg/l, Fish

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12.2. Persistence and degradability

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

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Persistence and degradability	The product is degraded completely by photochemical oxidation.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Persistence and degradability	The product is readily biodegradable.
Phototransformation	Scientifically unjustified.
Stability (hydrolysis)	Scientifically unjustified.
Biodegradation	- Degradation 75: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Bioaccumulative potential	Bioaccumulation is unlikely.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Bioaccumulative potential	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Partition coefficient	Technically not feasible.

ETHANOL

Bioaccumulative potential	log Kow: -0.35, BCF: 0.66,

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Bioaccumulative potential	BCF: < 10,
Partition coefficient	log Kow: 0.77

12.4. Mobility in soil

Mobility Not determined

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

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

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

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Adsorption/desorption coefficient	Scientifically unjustified.
Henry's law constant	Volatilisation is dependent on Henry's Law constant (HLC) which is not applicable to complex substances.
Surface tension	24 - 27 mN/m @ 25°C

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

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

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

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

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

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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.

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Other adverse effects This substance may contribute to ozone formation in the near surface atmosphere. However, the photochemical formation of ozone depends on a complex interaction of other atmospheric pollutant sources and environmental conditions. Therefore, the contribution of this substance to ozone formation is outside the scope of this substance assessment and is more appropriately addressed via EU air quality directives.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Containers should be thoroughly emptied before disposal because of the risk of an explosion. DO NOT BURN OR INCINERATE CONTAINERS EVEN WHEN EMPTY - CONTAINERS MAY BURST OR EXPLODE VIOLENTLY IF EXPOSED TO EXTREME HEAT.

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SECTION 14: Transport information

General This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed and labelled must show the following.

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOL DISPENSERS NOS

Proper shipping name (IMDG) AEROSOL DISPENSERS NOS

Proper shipping name (ICAO) AEROSOL DISPENSERS NOS

14.3. Transport hazard class(es)

ADR/RID class 3

IMDG class 3

ICAO class/division 3

Transport labels

14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Tunnel restriction code (D)

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.

SECTION 15: Regulatory information

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

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National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).
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). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	British Aerosol Manufacturers Code of Practice 7th. Edition 1999.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. GHS: Globally Harmonized System. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. LD_{50}: 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. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. EC_{50}: 50% of maximal Effective Concentration.
Classification abbreviations and acronyms	Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Asp. Tox. = Aspiration hazard Resp. Sens. = Respiratory sensitisation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Revision comments	Issued in new format for Reach compliance in accordance with EC 1272/2008 Issued in accordance with Annex II to REACH, as amended by Commission Regulation (EU) No. 2015/830 Revision to sections 2, 8, 11 & 12 for reclassification of solvents.
Issued by	Technical Dept. (P.E.)
Revision date	31/10/2018
Revision	7.0
Supersedes date	15/02/2017
SDS number	11064
SDS status	Approved.

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Hazard statements in full

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: may burst if heated.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.
H411 Toxic to aquatic life with long lasting effects.
H370 Causes damage to organs (Central nervous system, Eyes) if swallowed or if inhaled.

Signature

Initials_____