

SAFETY DATA SHEET

According to regulation (ES) č. 1907/2006

VUPLEX

VuPlex® Plastic Cleaner, Protectant and Polish

Datum revize: 9.2.2012

Revision: 2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name VuPlex® Plastic Cleaner, Protectant and Polish
Product No. New Formulation
Container size 50 g, 200 g, 375 g

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

Identified uses Cleaning agent.
Uses advised against Must not be handled in confined space without sufficient ventilation.

1.3. Details of the supplier of the safety data sheet

Supplier R&D Enterprises (Australasia) Pty. Ltd.
 Trading as VuPlex UK Ltd.
 Beacon House, 113 Kingsway, London, WC2B 6PP
 United Kingdom
 0808 189 0380
www.vuplex.co/ sales@vuplex.com.au

1.4. Emergency telephone number European emergency number: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R38. R43. F+;R12. N;R51/53. R67.

Human health

The product is irritating to eyes and skin. The product contains a sensitising substance which may provoke an allergic reaction among sensitive individuals. In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea.

Environment

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

Physical and Chemical Hazards

The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.

2.2. Label elements

Contains Labelling D-LIMONENE



Irritant



Extremely flammable



Dangerous for the environment

Risk Phrases

R12 Extremely flammable.
 R38 Irritating to skin.
 R43 May cause sensitisation by skin contact.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R67 Vapours may cause drowsiness and dizziness.

Safety Phrases

A1 Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
 A2 Do not spray on a naked flame or any incandescent material.
 S2 Keep out of the reach of children.
 S16 Keep away from sources of ignition - No smoking.
 S23 Do not breathe vapour/spray.
 S24/25 Avoid contact with skin and eyes.
 S37 Wear suitable gloves.
 S51 Use only in well-ventilated areas.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT		10-30%
CAS-No.: 64742-49-0 EC No.: 265-151-9		
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) Xn;R65. Xi;R38. F;R11. N;R50/53. R67.	
BUTANE		10-30%
CAS-No.: 106-97-8 EC No.: 203-448-7 Substance with National workplace exposure limits		
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12	
D-LIMONENE		1-5%
CAS-No.: 5989-27-5 EC No.: 227-813-5		
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) R10 R43 Xi;R38 N;R50/53	
2-(2-BUTOXYETHOXY)ETHANOL		< 1%
CAS-No.: 112-34-5 EC No.: 203-961-6		
Classification (EC 1272/2008) Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36	

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

SECTION 4: FIRSTAID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Place unconscious person on the side in the recovery position and ensure breathing can take place. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention if any discomfort continues.

Skin contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Spray in the eyes: Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. 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**

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

Vapours may cause headache, fatigue, dizziness and nausea. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion

Due to the physical nature of this material it is unlikely that swallowing will occur. May cause nausea, headache, dizziness and intoxication. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Skin contact

May cause skin irritation/eczema. Defatting, drying and cracking of skin. May cause allergic contact eczema.

Eye contact

Irritation of eyes and mucous membranes. Profuse watering of the eyes.

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

No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. **Extinguishing media**

Extinguishing media

Extinguish with 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**

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

Vapours may form explosive mixture with air at room temperature. Aerosol cans may explode in a fire.

Specific hazards

The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures.

5.3. **Advice for firefighters**

Special Fire Fighting Procedures

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures**

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid inhalation of vapours and aerosol spray. In case of inadequate ventilation, use respiratory protection. Avoid contact with skin and eyes.

6.2. **Environmental precautions**

Not relevant considering the small amounts used.

6.3. **Methods and material for containment and cleaning up**

Ventilate well. Let evaporate. Keep out of confined spaces because of explosion risk. Clean contaminated area with oil-removing material.

6.4. **Reference to other sections**

For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling**

Keep away from heat, sparks and open flame. During application and drying, solvent vapours will be emitted. Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not use in confined spaces without adequate ventilation and/or respirator.

7.2. **Conditions for safe storage, including any incompatibilities**

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep away from heat, sparks and open flame. Store in a cool and well-ventilated place.

7.3. **Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

Usage Description

Cleaning agent.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min	
2-(2-BUTOXYETHOXY) ETHANOL	WEL	10 ppm	67,5 mg/m ³	15 ppm	101,2 mg/m ³
BUTANE	WEL	600 ppm	1450 mg/m ³	750 ppm	1810 mg/m ³

WEL - Workplace Exposure Limit

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

DNEL

Professional	Inhalation.	Short Term	Local Effects	101.2 mg/m ³
Professional	Dermal	Long Term	Systemic Effects	20 mg/kg/day
Professional	Inhalation.	Long Term	Systemic Effects	67.5 mg/m ³
Professional	Inhalation.	Long Term	Local Effects	67.5 mg/m ³
Consumer	Inhalation.	Short Term	Local Effects	50.6 mg/m ³
Consumer	Dermal	Long Term	Systemic Effects	10 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	34 mg/m ³
Consumer	Oral	Long Term	Systemic Effects	1.25 mg/kg/day
Consumer	Inhalation.	Long Term	Local Effects	34 mg/m ³

PNEC

Freshwater	1	mg/l
Marinewater	0.1	mg/l
Intermittent release	3.9	mg/l
STP	200	mg/l
Sediment (Freshwater)	4	mg/kg
Sediment (Marinewater)	0.4	mg/kg
Soil	0.4	mg/kg

D-LIMONENE (CAS: 5989-27-5)

DNEL

Professional	Dermal	Short Term	Local Effects	222 µg/cm ²
Professional	Inhalation.	Long Term	Systemic Effects	33.3 mg/m ³
Consumer	Dermal	Short Term	Local Effects	111 µg/cm ²
Consumer	Inhalation.	Long Term	Systemic Effects	8.33 mg/m ³
Consumer	Oral	Long Term	Systemic Effects	4.76 mg/kg/day

PNEC

Freshwater	5.4	µg/l
Marinewater	0.54	µg/l
STP	1.8	mg/l
Sediment (Freshwater)	1.32	mg/kg
Sediment (Marinewater)	0.13	mg/kg
Soil	0.262	mg/kg

8.2. Exposure controls Protective equipment



Engineering measures

Observe occupational exposure limits and minimize the risk of inhalation of vapours. All handling to take place in well-ventilated area.

Respiratory equipment

Respiratory protection must be used if air contamination exceeds acceptable level. Wear mask supplied with: Chemical respirator with organic vapour cartridge.

Hand protection

Use protective gloves. Neoprene gloves are recommended. Nitrile gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent reasonably probable skin contact.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke. Use appropriate skin cream to prevent drying of skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Cream. Yellow.
Odour	Strong. Citrus/Spearmint
Solubility	Forms an emulsion with water.
Initial boiling point and boiling range	88 °C @ 760 mm Hg (without propellant)
Melting point (°C)	Not relevant
Relative density	0.91
Vapour pressure	23 mm Hg @ 20 °C
Evaporation rate	8.40 (BuOAC = 1) (without propellant)
pH-Value, Conc. Solution	6.6 (without propellant)
Viscosity	100 cSt @ 40 °C
Flash point	-12 °C TCC (Tag closed cup). (without propellant)
Auto Ignition Temperature (°C)	>230 °C (without propellant)
Oxidising properties	Does not meet the criteria for oxidising.

9.2. Other information

Volatile By Vol. (%)	97.27 %
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use. Aerosol containers can explode when heated, due to excessive pressure build-up.

10.3. Possibility of hazardous reactions

Not applicable.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (Co2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Solvent vapours are hazardous and may cause nausea, sickness and headaches. Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion

May cause nausea, headache, dizziness and intoxication.

Skin contact

Irritating to skin. Product has a defatting effect on skin. May cause sensitisation by skin contact.

Eye contact

Spray and vapour in the eyes may cause irritation and smarting.

Route of entry

Inhalation. Skin and/or eye contact.

Toxicological information on ingredients

BUTANE (CAS: 106-97-8)

Acute toxicity:

Acute Toxicity (Oral Ld50)

No information available.
Technically not feasible.
Based on available data the classification criteria are not met.

Acute Toxicity (Dermal Ld50)

No information available.
Technically not feasible.
Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation Lc50)

539600 ppmV (gas) Mouse 1 hour
REACH dossier information
Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Not irritating.

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:

Respiratory sensitisation

Not applicable.
There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Not applicable.
Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Bacterial Reverse Mutation Test
Negative.
This substance has no evidence of mutagenic properties.

Carcinogenicity:

Carcinogenicity

Not determined.
Scientifically unjustified.
This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Fertility: NOAEC 9000 ppm Inhalation. Rat
REACH dossier information
This substance has no evidence of toxicity to reproduction.

Reproductive Toxicity - Development

Teratogenicity: NOAEC 9000 ppm Inhalation. Rat
REACH dossier information
This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure:

STOT - Single exposure

No information available.
Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEC 9000 ppmV/6hr/day Inhalation. Rat
REACH dossier information
Not classified as a specific target organ toxicant after repeated exposure. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.

Aspiration hazard:

Viscosity

Not applicable.
Not relevant, due to the form of the product.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Acute toxicity:

Acute Toxicity (Oral Ld50)

2410 mg/kg Mouse

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal Ld50)

2764 mg/kg Rabbit

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation Lc50)

> 29 ppmV (gas) Rat 2 hours

REACH dossier information

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Dose

0.5 ml 1 hr Rabbit

Erythema/eschar score

Very slight erythema -barely perceptible (1).

Oedema score

Very slight oedema -barely perceptible (1).

REACH dossier information

Slightly irritating.

Extreme pH.

Moderate pH (> 2 and < 11.5).

Non Corrosive to skin.

Serious eye damage/irritation:

Moderately Irritating.

Respiratory or skin sensitisation:

Respiratory sensitisation

No information available.

There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Guinea pig maximization test (GPMT): Guinea Pig

REACH dossier information

Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Bacterial Reverse Mutation Test

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Genotoxicity - In Vivo

Chromosome aberration:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Carcinogenicity:

Carcinogenicity

No information available.

This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Two-generation study: NOAEL 720 mg/kg Oral Rat

REACH dossier information

No evidence of reproductive toxicity in animal studies

Reproductive Toxicity - Development

Teratogenicity: NOAEL 1000 mg/kg/day Dermal Rabbit

REACH dossier information

This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure:

STOT - Single exposure

No information available.

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

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 250 mg/kg Oral Rat

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

REACH dossier information

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

D-LIMONENE (CAS: 5989-27-5)

Acute toxicity:

Acute Toxicity (Oral Ld50)

> 2000 mg/kg Rat

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal Ld50)

> 5000 mg/kg Rabbit

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation Lc50)

No information available.

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Dose

0.5 ml 4 hr Rabbit

Erythema/eschar score

Well defined erythema (2).

Oedema score

Slight oedema - edges of area well defined by definite raising (2).

REACH dossier information

Moderately Irritating.

Extreme pH.

Moderate pH (> 2 and < 11.5).

Non Corrosive to skin.

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:

Respiratory sensitisation

No information available.

There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Local Lymph Node Assay (LLNA) Mouse

REACH dossier information

Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Chromosome aberration:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Genotoxicity - In Vivo

DNA damage and/or repair:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Carcinogenicity:

No evidence of carcinogenicity in animal studies

Reproductive Toxicity:

Reproductive Toxicity - Development

Developmental toxicity: NOAEL 591 mg/kg/day Oral Rat

REACH dossier information

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

STOT - Single exposure

No information available.

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

Specific target organ toxicity - repeated exposure:

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

REACH dossier information

Harmful: may cause lung damage if swallowed.

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Acute toxicity:

Acute Toxicity (Oral Ld50)

> 5000 mg/kg Rat

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal Ld50)

> 2000 mg/kg Rabbit

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation Lc50)

> 5.61 mg/l (dust/mist) Rat 4 hours

REACH dossier information

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Dose

0.5 ml 4 hr Rabbit

Erythema/eschar score

Moderate to severe erythema (3).

Oedema score

Slight oedema - edges of area well defined by definite raising (2).

REACH dossier information

Irritating.

Extreme pH.

Moderate pH (> 2 and < 11.5).

Non Corrosive to skin.

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:

Respiratory sensitisation

No information available.

There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Guinea pig maximization test (GPMT): Guinea Pig

REACH dossier information

Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Bacterial Reverse Mutation Test

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Genotoxicity - In Vivo

Chromosome aberration:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Carcinogenicity:

Carcinogenicity

NOAEL 0.05 ml Oral Rat

REACH dossier information

This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Two-generation study: NOAEC 20000 mg/m³ Inhalation. Rat
REACH dossier information

No evidence of reproductive toxicity in animal studies

Reproductive Toxicity - Development

Fetotoxicity: NOAEC 23900 mg/m³ Inhalation. Rat

REACH dossier information

No evidence of reproductive toxicity in animal studies

Specific target organ toxicity - single exposure:

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

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEC 1402 mg/l/6hr/day Inhalation. Rat

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

REACH dossier information

Harmful: may cause lung damage if swallowed.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

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

12.1. Toxicity

Acute Fish Toxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

Acute Toxicity - Fish

LC50 96 hours 24.1 mg/l

Estimated Value REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 14.2 mg/l

Estimated Value REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 96 hours 7.7 mg/l

Estimated Value REACH dossier information

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Acute Toxicity - Fish

LC50 96 hours 1300 mg/l *Lepomis macrochirus* (Bluegill)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC0 48 hours > 100 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

NOEC 96 hours > 100 mg/l *Scenedesmus subspicatus*

REACH dossier information

Acute Toxicity - Microorganisms

EC0 30 min > 1995 mg/l Activated sludge

D-LIMONENE (CAS: 5989-27-5)

Acute Toxicity - Fish

LC50 96 hours 0.72 mg/l *Pimephales promelas* (Fat-head Minnow)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 24 hours 0.85 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours ~ 8 mg/l *Scenedesmus subspicatus*

Estimated Value REACH dossier information

Acute Toxicity - Microorganisms

EC50 3 hours 209 mg/l Activated sludge
REACH dossier information

Chronic Toxicity - Aquatic Invertebrates

NOEC 21 days ~ 0.27 mg/l Daphnia magna
Estimated Value REACH dossier information

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Acute Toxicity - Fish

LC50 96 hours 8.2 mg/l Pimephales promelas (Fat-head Minnow)
Estimated Value REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 4.5 mg/l Daphnia magna
Estimated Value REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours 3.1 mg/l Selenastrum capricornutum
Estimated Value REACH dossier information

Chronic Toxicity - Aquatic Invertebrates

NOEC 21 days 2.6 mg/l Daphnia magna
Estimated Value REACH dossier information

12.2. Persistence and degradability

Degradability

The product contains persistent (not readily degradable) substances.

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

Phototransformation

Not determined.

Stability (Hydrolysis)

No significant reaction in water.

Biodegradation

Water DT50 3.5 days
Estimated Value REACH dossier information
The substance is readily biodegradable.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Phototransformation

Air. Half-life: 3.4 hours
Estimated Value REACH dossier information

Stability (Hydrolysis)

No significant reaction in water.

Biodegradation

Water Degradation (85%) 28 days
The substance is readily biodegradable.

D-LIMONENE (CAS: 5989-27-5)

Phototransformation

Air. DT50 0.37 hours
Estimated Value REACH dossier information

Stability (Hydrolysis)

No significant reaction in water.

Biodegradation

Water Degradation (80%) 28 days
REACH dossier information
The substance is readily biodegradable.

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Biodegradation

Water Degradation (94%) 25 days
Inherently biodegradable

12.3. Bioaccumulative potential

Bioaccumulative potential

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

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

Bioaccumulative potential

Will not bio-accumulate.

Partition coefficient

log Pow 2.89

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Bioaccumulative potential

The product is not bioaccumulating.

Partition coefficient

log Kow 1

D-LIMONENE (CAS: 5989-27-5)

Bioaccumulative potential

May accumulate in soil and water systems.

Partition coefficient

log Pow 4.38

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Bioaccumulative potential

May accumulate in soil and water systems.

Partition coefficient

log Kow > 3

Estimated Value

12.4. Mobility in soil

Mobility:

The product is insoluble in water and will spread on the water surface. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

Mobility:

Highly volatile. The product is insoluble in water.

Henry's Law Constant

96200 Pa m³/mol 25 °C

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Mobility:

The product is non-volatile. The product is water soluble and may spread in water systems.

Henry's Law Constant

15.2E-9 atm m³/mol

D-LIMONENE (CAS: 5989-27-5)

Mobility:

Volatile The product has poor water-solubility. Accumulates in soil and sediment.

Adsorption/Desorption Coefficient

Koc ~ 1300

Henry's Law Constant

0.026 atm m³/mol 25

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Adsorption/Desorption Coefficient

Soil log Koc 2.89

Estimated Value

Henry's Law Constant

14900 Pa m³/mol @ 20 °C

Estimated Value REACH dossier information

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

Not Classified as PBT/vPvB by current EU criteria.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Not Classified as PBT/vPvB by current EU criteria.

D-LIMONENE (CAS: 5989-27-5)

Not Classified as PBT/vPvB by current EU criteria.

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

None known.

Ecological information on ingredients.

BUTANE (CAS: 106-97-8)

None known.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

None known.

D-LIMONENE (CAS: 5989-27-5)

None known.

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (CAS: 64742-49-0)

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Do not puncture or incinerate even when empty.

13.1. Waste treatment methods

No specific disposal method required. Empty containers must not be burned because of explosion hazard.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS (CONTAINS NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT)

14.3. Transport hazard class(es)

ADR/RID/ADN Class 2.1

ADR/RID/ADN Class Class 2.1: Flammable gases.

ADR Label No. 2.1

IMDG Class 2.1

ICAO Class/Division 2.1

Transport Labels



14.4. Packing group

Not applicable.

ADR/RID/ADN Packing group -

IMDG Packing group -

ICAO Packing group -

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6. Special precautions for user

EMS

F-D, S-U

Tunnel Restriction Code

(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant No information required.

SECTION 15: REGULATORY INFORMATION

DETERGENT LABELLING

15 - < 30%

< 5%

Contains

Aliphatic hydrocarbons

perfumes

d-LIMONENE

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

Approved Code Of Practice

Approved Classification and Labelling Guide (6th Edition, April 2009)

Guidance Notes

Workplace Exposure Limits Eh40.

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), establishing a European Chemicals Agency, amending Directive

1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive

76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC)

No 1907/2006 with amendments.

National Regulations

The Aerosol Dispensers Regulations 2009 (SI 2824) The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment

Regulations 2009 ("CDG 2009"), SI 2009 No 1348 The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I

2009 No. 716).

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 09/02/2012

Revision 2

Risk Phrases In Full

R12	Extremely flammable.
R10	Flammable.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R36	Irritating to eyes.
R38	Irritating to skin.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H222	Extremely flammable aerosol.
H220	Extremely flammable gas.
H226	Flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

Disclaimer

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.