1. IDENTIFICATION OF THE SUBSTRATE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name/designation: Alkorplan Seam Sealer.

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

Main use category: Sealing compound.
Used advised against: None known.

1.3 Manufacturer/Supplier

Supplier:
Alumasc Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, United Kingdom, WA9 4JG
Tel: +44 (0)1744 648400
e-mail: technical@alumascroofing.com

1.4 Manufacturer/Supplier

Emergency telephone: 01744 648 400 - (Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) No. 1272/2008:

Flam. Liq.	Category 2	H225: Highly flammable liquid and vapour.
Carc.	Category 2	H351: Suspected of causing cancer.
Eye Dam.	Category 1	H318: Causes serious eye damage.
STOT SE	Category 3	H335: May cause respiratory irritation.
STOT SE	Category 3	H336: May cause drowsiness or dizziness.

2.2 Labelling according to Regulation (EU) 1272/2008

Hazard pictures:

Contains: Tetrahydrofuran; Cyclohexanone.

Signal word: Danger.

Hazard statements:
H225: Highly flammable liquid and vapour.
H351: Suspected of causing cancer.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.

Precautionary statements:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves, protective clothing and eye protection/face protection.
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Gas/vapour spreads at floor level: ignition hazard.

3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

3.1 Substances

Liquid PVC seam sealant for use where water may hold.

3.2 Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
Tetrahydrofuran 01-2119444314-46	109-99-9 203-726-8	C<75 %	Flam. Liq. 2; H225 Carc. 2; H351 Acute Tox. 4; H302 Eye Irrit. 2; H319 STOT SE 3; H335 STOT SE 3; H336	(1)(2)(6) (8)(10)	Constituent
Silica, Pyrogenic 01-2119379499-16	112945-52-5	C<5 %		(2)	Constituent
Cyclohexanone 01-2119453616-35	108-94-1 203-631-1	C<10 %	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Irrit. 2; H315	(1)(2)(10)	Constituent
Polyvinylchloride	9002-86-2	C<15 %		(2)(V)	Constituent
Bis(2-Propylheptyl) Phthalate 01-2119446694-30	53306-54-0 258-469-4	C<10 %		(2)	Constituent
Titanium Dioxide 01-2119489379-17	13463-67-7 236-675-5	C<5 %		(2)	Constituent

(1) For H-statements in full: see Section 16.
(2) Substance with a Community workplace exposure limit.
(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data.
(8) Specific concentration limits, see Section 16.
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006.
(V) Exempted from registration under REACH (Regulation (EC) No 1907/2006, article 2 (9), polymers).

4. FIRST AID MEASURES

4.1 Description of first aid measures

General: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

Inhalation: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

Skin contact: Rinse with water. Do not apply (chemical) neutralizing agents without medical advice. Take victim to a doctor if irritation persists.

Eye contact: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist.

Ingestion:	Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:	Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Headache. Nausea. EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Central nervous system depression. Dizziness. Narcosis. Ringing in the ears. Sensorial disturbances. Disturbances of consciousness. Respiratory difficulties.
Skin contact:	Dry skin. Red skin.
Eye contact:	Corrosion of the eye tissue.
Ingestion:	Dry/sore throat. Symptoms similar to those listed under inhalation.
Delayed symptoms:	No effects known.

4.3 Indication of any immediate medical attention and special treatment needed

If applicable and available, it will be listed below.

5. FIRE-FIGHTING MEASSURES

5.1 Extinguishing media

Suitable extinguishing media:
Small fire: Quick-acting ABC powder extinguisher, quick-acting BC powder extinguisher, quick-acting Class B foam extinguisher, quick-acting CO2 extinguisher.
Major fire: Class B foam (alcohol-resistant), water spray if puddle cannot expand.

Unsuitable extinguishing media:
Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.
Major fire: Water; risk of puddle expansion.

5.2 Special hazards arising from the substance or mixture:

On burning:
release of toxic and corrosive gases/vapours (Hydrogen Chloride, Carbon Monoxide - Carbon Dioxide).

5.3 Advice for firefighters

Instructions:
If exposed to fire cool the closed containers by spraying with water. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

Special protective equipment for fire-fighters:
Gloves. Protective goggles. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

General:
Stop engines and no smoking. No naked flames or sparks. Spark and explosion proof appliances and lighting equipment.

Protective equipment for non-emergency personnel:
See Section 8.2.

Protective equipment for emergency responders:
Gloves. Protective goggles. Protective clothing.

Suitable protective clothing:
See Section 8.2.

6.2 Environmental precautions

Contain released product. Dam up the liquid spill. Try to reduce evaporation. Prevent spreading in sewers.

6.3 Methods and material for containment and cleaning up

Take up liquid spill into a non-combustible material, e.g.: sand. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/ competent authority. Wash clothing and equipment after handling.

6.4 Reference to other sections

See Section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use spark/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe strict hygiene. Do not discharge the waste into the drain. Keep container tightly closed.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage requirements:
Store in a cool area. Keep container in a well-ventilated place. Fireproof storeroom. Meet the legal requirements.

Keep away from:
Heat sources, ignition sources.

Suitable packaging material:
Metal.

Non suitable packaging material:
No data available

7.3 Specific end uses(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits (OEL):
If limit values are applicable and available these will be listed below.

EU:

Cyclohexanone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	10 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	40.8 mg/m³
	Short time value (Indicative occupational exposure limit value)	20 ppm
	Short time value (Indicative occupational exposure limit value)	81.6 mg/m³
Tetrahydrofuran	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	150 mg/m³
	Short time value (Indicative occupational exposure limit value)	100 ppm
	Short time value (Indicative occupational exposure limit value)	300 mg/m³

Belgium:

Chlorure de Polyvinyle (Fraction Alvéolaire)	Time-weighted average exposure limit 8 h	1 mg/m³
Cyclohexanone	Time-weighted average exposure limit 8 h	10 ppm
	Time-weighted average exposure limit 8 h	40.8 mg/m³
	Short time value	20 ppm
	Short time value	81.6 mg/m³
Tétrahydrofurane	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	150 mg/m³
	Short time value	100 ppm
	Short time value	300 mg/m³
Titane (Dioxyde de)	Time-weighted average exposure limit 8 h	10 mg/m³

The Netherlands:

Cyclohexanon	Short time value (Public occupational exposure limit value)	12 ppm
	Short time value (Public occupational exposure limit value)	50 mg/m³
Tetrahydrofuraan	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	100 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	300 mg/m³
	Short time value (Public occupational exposure limit value)	200 ppm
	Short time value (Public occupational exposure limit value)	600 mg/m³

France:

Cyclohexanone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	40.8 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	20 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	81.6 mg/m³
Tétrahydrofuranne	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	150 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	300 mg/m³
Titane (Dioxyde De), En Ti	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³

Germany:

Cyclohexanon	Time-weighted average exposure limit 8 h (TRGS 900)	20 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	80 mg/m³
Kieselsäuren, Amorphe	Time-weighted average exposure limit 8 h (TRGS 900)	4 mg/m³
Tetrahydrofuran	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	150 mg/m³

UK:

Cyclohexanone	Time-weighted average exposure limit 8 h (Workplace exposure limit 10 ppm (EH40/2005))	10 ppm
Cyclohexanone	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	41 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	20 ppm
	Short time value (Workplace exposure limit (EH40/2005))	82 mg/m³
Polyvinyl Chloride inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

Polyvinyl chloride respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Tetrahydrofuran	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	150 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	300 mg/m³
Titanium Dioxide respirable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Titanium Dioxide total Inhalable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

USA (TLV-ACGIH):

Cyclohexanone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm
	Short time value (TLV - Adopted Value)	50 ppm
Polyvinyl Chloride (PVC)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m³ (R)
Tetrahydrofuran	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
	Short time value (TLV - Adopted Value)	100 ppm
Titanium Dioxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	10 mg/m³

(R): Respirable fraction.

National biological limit values:
If limit values are applicable and available these will be listed below.

Germany:

Tetrahydrofuran (Tetrahydrofuran)	Urin: expositionsende, bzw. schichtende	2 mg/l	11/2012 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG

UK:

Cyclohexanone (Cyclohexanol)	Urine: post shift	2 mmol/mol creatinine

USA:

Cyclohexanone (1,2-Cyclohexanediol)	Urine: end of shift at end of workweek	80 mg/L
Cyclohexanone (Cyclohexanol)	Urine: end of shift	8 mg/L
Tetrahydrofuran (Tetrahydrofuran)	Urine: end of shift	2 mg/L

Sampling methods:

Product name	**Test**	**Number**
Cyclohexanone (Ketones I)	NIOSH	1300
Cyclohexanone (Ketones I)	NIOSH	2555
Cyclohexanone (Volatile organic compounds)	NIOSH	2549
Cyclohexanone	OSHA	1
Fumed (Silica, Amorphous)	NIOSH	7501
Silica, Amorphous (respirable)	NIOSH	7501
Tetrafluoroethylene (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Tetrahydrofuran	NIOSH	1609
Tetrahydrofuran	OSHA	7
TiO2	NIOSH	7302
TiO2	NIOSH	7304

Applicable limit values when using the substance or mixture as intended:
If limit values are applicable and available these will be listed below.

Threshold values:

DNEL/DMEL – Workers:

Tetrahydrofuran:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	72.4 mg/m³
	Acute systemic effects inhalation	96 mg/m³
	Long-term local effects inhalation	150 mg/m³
	Acute local effects inhalation	300 mg/m³
	Long-term systemic effects dermal	12.6 mg/kg bw/day

Silica, Pyrogenic:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	4 mg/m³

Cyclohexanone:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	40 mg/m³
	Acute systemic effects inhalation	80 mg/m³
	Long-term local effects inhalation	40 mg/m³
	Acute local effects inhalation	80 mg/m³
	Long-term systemic effects dermal	4 mg/kg bw/day
	Acute systemic effects dermal	4 mg/kg bw/day

Bis(2-Propylheptyl) Phthalate:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	28.8 mg/m³
	Long-term local effects inhalation	8.4 mg/m³
	Long-term systemic effects dermal	102.08 mg/kg bw/day

DNEL/DMEL - General population:

Tetrahydrofuran:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	13 mg/m³
	Acute systemic effects inhalation	52 mg/m³
	Long-term local effects inhalation	75 mg/m³
	Acute local effects inhalation	150 mg/m³
	Long-term systemic effects dermal	1.5 mg/kg bw/day
	Long-term systemic effects oral	1.5 mg/kg bw/day

Cyclohexanone:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects inhalation	10 mg/m³
	Acute systemic effects inhalation	20 mg/m³
	Long-term local effects inhalation	20 mg/m³
	Acute local effects inhalation	40 mg/m³
	Long-term systemic effects dermal	1 mg/kg bw/day
	Acute systemic effects dermal	1 mg/kg bw/day
	Long-term systemic effects oral	1.5 mg/kg bw/day
	Acute systemic effects oral	1.5 mg/kg bw/day

Bis(2-Propylheptyl) Phthalate:

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects dermal	61.25 mg/kg bw/day
	Long-term systemic effects inhalation	8.52 mg/m³
	Long-term systemic effects oral	4.9 mg/kg bw/day
	Long-term local effects inhalation	2.5 mg/m³

PNEC:

Tetrahydrofuran:

Compartments	Value
Fresh water	4.32 mg/l
Marine water	0.432 mg/l
Fresh water (intermittent releases)	21.6 mg/l
STP	4.6 mg/l
Fresh water sediment	23.3 mg/kg sediment dw
Marine water sediment	2.33 mg/kg sediment dw
Soil	2.13 mg/kg soil dw
Oral	67 mg/kg food

Cyclohexanone:

Compartments	Value
Fresh water	0.033 mg/l
Marine water	0.003 mg/l
Fresh water (intermittent releases)	0.329 mg/l
STP	10 mg/l
Fresh water sediment	0.095 mg/kg sediment dw
Soil	0.014 mg/kg soil dw

Bis(2-Propylheptyl) Phthalate:

Compartments	Value
Soil	10 mg/kg soil dw

Control banding:
If applicable and available, it will be listed below.

8.2 Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

Appropriate engineering controls:
Use spark/explosion proof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

Individual protection measures, such as personal protective equipment:
Observe strict hygiene. Do not eat, drink or smoke during work.

Respiratory protection: Full face mask with filter type A at conc. in air > exposure limit.

Hand protection: Protective gloves against chemicals (EN374).

Eye protection: Protective goggles.

Skin protection: Protective clothing.

Environmental exposure controls:
See Sections 6.2, 6.3 & 13.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical form: Liquid.
Odour: Characteristic odour.
Odour threshold: No data available.
Colour: No data available on colour.
Particle size: Not applicable (liquid).
Explosion limits: No data available.

Flammability:	Highly flammable liquid and vapour.
Log Kow:	Not applicable (mixture).
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Melting point:	No data available.
Boiling point:	No data available.
Evaporation rate:	No data available.
Relative vapour density:	No data available.
Vapour pressure:	No data available.
Solubility:	No data available.
Relative density:	No data available.
Decomposition temperature:	No data available.
Auto-ignition temperature:	No data available.
Flash point:	No data available.
Explosive properties:	No chemical group associated with explosive properties.
Oxidising properties:	No chemical group associated with oxidising properties.
pH:	No data available.

9.2 Other information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Precautionary measures:
Use spark/explosion proof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

On burning:
Release of toxic and corrosive gases/vapours (Hydrogen Chloride, Carbon Monoxide - Carbon Dioxide).

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test results:

Acute toxicity:

Liquid PVC 81038:
No (test)data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Oral	LD50		1650 mg/kg bw		Rat (male/ female)	Experimental value
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/ female)	Experimental value
Inhalation	LC50	Other	> 14.7 mg/l	6 h	Rat (male/ female)	Experimental value

Silica, Pyrogenic:

Route of exposure	Parameter	Method	Value	Exposure time	Species
Oral	LD50		3160 mg/kg		Rat
Dermal	LD50		> 5000 mg/kg		Rabbit

Cyclohexanone:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	BASF test	1890 mg/kg bw		Rat	Experimental value	Aqueous solution
Dermal						Data waiving	
Dermal			Vategory 4			Annex VI	
Inhalation (vapours)	LC50	BASF test	> 6.2 mg/l air	4 h	Rat (male/ female)	Experimental value	

Polyvinylchloride:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Oral	LD50		> 2000 mg/kg		Rat	Literature study
Dermal	LD50		> 2000 mg/kg		Rabbit	Literature study

Bis(2-Propylheptyl) Phthalate:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Oral	LD50	Equivalent to OECD 401	> 5000 mg/kg		Rat (male / female)	Experimental value
Dermal	LD50	Equivalent to OECD 402	> 2000 mg/kg	24 h	Rabbit (male / female)	Experimental value
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 5 mg/l	4 h	Rat (male / female)	Experimental value

Titanium Dioxide:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Oral	LD50	OECD 425	> 5000 mg/kg bw		Rat (female)	Experimental value
Dermal						Data waiving
Inhalation (dust)	LC50	Other	> 6.82 mg/l	4 h	Rat (male)	Experimental value

Conclusion:
Not classified for acute toxicity.

Corrosion/Irritation:

Liquid PVC 81038:
No (test) data on the mixture available.
Classification is based on the relevant ingredients.

Tetrahydrofuran:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Irritating: Cat.2					Annex VI
Inhalation	Irritating: STOT SE Cat.3					Annex VI

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test.

Cyclohexanone:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
N/A (in vitro test)	Serious eye damage		<3.5 minutes		Isolated chicken eye	Experimental value
Skin	Irritating	OECD 404	4 h	3 minutes, 1 h	Rabbit	Experimental value

Bis(2-Propylheptyl) Phthalate:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Not irritating	OECD 405	24 h	1; 24; 48; 72 h	Rabbit	Experimental value
Skin	Not irritating	OECD 404	4 h	1; 24; 48; 72 h	Rabbit	Experimental value

Titanium Dioxide:

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Not irritating	OECD 405		1; 24; 48; 72 h	Rabbit	Experimental value
Skin	Not irritating	Equivalent to OECD 404	4 h		Rabbit	Experimental value

Conclusion:
Causes serious eye damage.
May cause respiratory irritation.
Not classified as irritating to the skin

Respiratory or skin sensitisation:

Liquid PVC 81038:
No (test) data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination
Skin	Not sensitizing	Equivalent To OECD 429			Mouse (female)	Experimental value

Cyclohexanone:

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination
Intradermal	Limited positive test result	Guinea pig max. test		24 h	Guinea pig	Experimental value

Bis(2-Propylheptyl) Phthalate:

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination
Skin	Not sensitizing	Equivalent to OECD 406		24 h	Guinea pig (male/female)	Experimental value

Titanium Dioxide:

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination
Skin	Not sensitizing	Equivalent to OECD 429			Mouse (female)	Experimental value
Inhalation	Not sensitizing				Mouse (female)	Experimental value

Conclusion:
Not classified as sensitizing for skin.
Not classified as sensitizing for inhalation.

Specific target organ toxicity:

Liquid PVC 81038:
No (test) data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 407	111.3 mg/kg bw/day		No effect	4 week(s)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	1800 ppm	General	No effect	14 weeks (6 h / day, 5 days / week)	Rat (male/ female)	Experimental value
Inhalation (vapours)	NOEC	EPA OTS 798.6050	1.5 mg/l	Central nervous system	No effect	6 h	Rat (male/ female)	Experimental value
Inhalation			STOT SE Cat.3		Drowsiness, dizziness			Literature study

Cyclohexanone:

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 408	143 mg/kg bw/day		No effect	3 months	Rat (male/ female)	Experimental value

Bis(2-Propylheptyl) Phthalate:

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 408	39 mg/kg bw/day		No effect	3 months	Rat (male/ female)	Experimental value

Titanium Dioxide:

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOEL	OECD 407	24000 mg/kg bw/day		No effect	29 days	Rat (male)	Experimental value
Dermal								Data waiving
Inhalation (dust)	NOEL	Other	10 mg/m³ air		No effect	104 weeks (6 h / day, 5 days / week)	Rat (male/ female)	Experimental value

Conclusion:
May cause drowsiness or dizziness.
Not classified for sub-chronic toxicity.

Mutagenicity (in vitro):

Liquid PVC 81038:
No (test) data on the mixture available.

Tetrahydrofuran:

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

Cyclohexanone:

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value

Bis(2-Propylheptyl) Phthalate:

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 473	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value

Titanium Dioxide:

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster ovary (CHO)		Experimental value

Mutagenicity (in vivo):

Liquid PVC 81038:
No (test) data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474	14 weeks (6 h / day, 5 days / week)	Mouse (male/ female)	Blood	Experimental value

Cyclohexanone:

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative		5 days (7 h /day)	Rat (male/ female)		Experimental value

Titanium Dioxide:

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral stomach tube)	OECD 474		Rat (male/ female)		Experimental value

Conclusion:
Not classified for mutagenic or genotoxic toxicity.

Carcinogenicity:

Liquid PVC 81038:
No (test) data on the mixture available.
Classifciation is based on the relevant ingredients.

Tetrahydrofuran:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Carcinogenic toxicity study	1800 ppm	105 weeks (6h / day, 5 days / week)	Rat (male/ female)	No carcinogenic effect	Kidney	Experimental value
Unknown			Category 2					Annex VI

Cyclohexanone:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	LOAEL	Equivalent to OECD 453	13000 ppm	104 week(s)	Mouse (male/ female)	Neoplastic effects		Experimental value

Titanium Dioxide:

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (dust)	NOAEC	OECD 453	5 mg/m³ air	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect	Lungs	Experimental value
Oral (diet)	NOEL	Carcinogenic toxicity study	> 50000 ppm	103 weeks (7 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion:
Suspected of causing cancer.

Reproductive toxicity:

Liquid PVC 81038:
No (test) data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	1800 ppm	14 days (6h / day)	Rat (male/ female)	No effect		Experimental value
Maternal toxicity	NOAEL	Equivalent to OECD 414	1800 ppm	14 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility	NOAEL	OECD 416	9000 ppm	70 days (continuous) 98 days (continuous)	Rat (male/ female)	No effect		Experimental value

Cyclohexanone:

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	500 mg/kg bw/day	13 day(s)	Rabbit	No effect		Experimental value
Maternal toxicity	NOAEL	OECD 414	250 mg/kg bw/day	13 day(s)	Rabbit	No effect		Experimental value
Effects on fertility	NOAEC	Equivalent to OECD 416	1000 ppm		Rat (male/ female)	No effect		Experimental value

Bis(2-Propylheptyl) Phthalate:

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Development toxicity	NOAEL	OECD 414	200 mg/kg bw/day	20 day(s)	Rat	No effect	Foetus	Experimental value
	NOAEL	OECD 414	1000 mg/kg bw/day	20 day(s)	Rat	No effect		Experimental value
Maternal toxicity	NOAEL	OECD 414	200 mg/kg bw/day	20 day(s)	Rat	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 416	600 mg/kg bw/day	126 day(s)	Rat (male/ female)	No effect		Experimental value
	NOAEL (F1)	OECD 416	600 mg/kg bw/day	131 day(s)	Rat (male/ female)	No effect		Experimental value

Titanium Dioxide:

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	2 weeks (7 days / week)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	2 weeks (7 days / week)	Rat	No effect		Experimental value

Conclusion:
Not classified for reprotoxic or development toxicity.

Toxicity other effects:

Liquid PVC 81038:
No (test) data on the mixture available.

Chronic effects from short and long term exposure:

Liquid PVC 81038:
Enlargement/infection of the liver. Infection of the renal tissue. Visual disturbances. Auditory disturbances.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Liquid PVC 81038:
No (test)data on the mixture available.
Judgement is based on the relevant ingredients.

Tetrahydrofuran:

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	2160 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	LC50	Equivalent to OECD 202	3485 ppm	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration

Toxicity algae and other aquatic plants	Toxicity threshold	Other	3700 mg/l	8 day(s)	Scenedes-mus quadricauda	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	OECD 210	216 mg/l	33 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro- organisms	EC0		580 mg/l	168 h	Pseudomo-nas putida			Literature study
	IC50	Equivalent to OECD 209	460 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; Nominal concentration

Cyclohexanone:

	Parameter	**Method**	**Value**	**Duration**	**Species**	**Test design**	**Fresh/salt water**	**Value determination**
Acute toxicity fishes	LC50	US EPA	527 mg/l 732 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	OECD 202	>100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Read-across; GLP
Toxicity algae and other aquatic plants	ErC50	Other	32.9 mg/l	72 h	Chlamydo-monas reinhardtii	Static system	Fresh water	Experimental value
Toxicity aquatic micro- organisms	EC50	OECD 209	>1000 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value

Polyvinylchloride:

	Parameter	**Method**	**Value**	**Duration**	**Species**	**Test design**	**Fresh/salt water**	**Value determination**
Acute toxicity fishes	LC50		≥ 100 mg/l	96 h	Pisces			Literature study

Bis(2-Propylheptyl) Phthalate:

	Parameter	**Method**	**Value**	**Duration**	**Species**	**Test design**	**Fresh/salt water**	**Value determination**
Acute toxicity fishes	LC50	OECD 203	> 10000 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	EU Method C.2	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	EU Method C.3	> 100 mg/l	72 h	Desmodes-mus subspicatus	Static system	Fresh water	Experimental value; Growth rate
	EC50	EU Method C.3	> 100 mg/l	72 h	Desmodes-mus subspicatus	Static system	Fresh water	Experimental value; Biomass
Long-term toxicity aquatic crustacea	NOEC	OECD 211	> 1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value
	LOEC	OECD 211	> 1 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC20	OECD 209	> 1000 mg/l	180 minutes	Activated sludge			Experimental value
	EC50	EU Method C.11	> 1000 mg/l	180 minutes	Activated sludge	Static system	Fresh water	Experimental value;GLP

Titanium Dioxide:

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	> 100 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	LC50	Equivalent to OECD 202	> 500 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	ErC50	EPA 600/ 9- 78-018	61 mg/l	72 h	Pseudokirchneri ella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish	NOEC	Equivalent to OECD 212	≥ 1000 mg/l	8 day(s)	Danio rerio	Semi-static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic crustacea	NOEC	OECD 211	≥ 2.92 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Weight of evidence; GLP

Conclusion:
Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

12.2 Persistence and degradability

Tetrahydrofuran:

Biodegradation water:

Method	Value	Duration	Value termination
Equivalent or similar to OECD 301D	39% Oxygen consumption	28 days	Experimental value

Biodegradation soil:

Method	Value	Duration	Value termination
			Data waiving

Cyclohexannone:

Biodegradation water:

Method	Value	Duration	Value termination
OECD 301C: Modified MITI Test (I)	87%	14 day(s)	Experimental value

Phototransformation air (DT50 air):

Method	Value	Duration	Value termination
	2.5 day(s)	500000 /cm³	Experimental value

Bis(2-Propylheptyl) Phthalate:

Biodegradation water:

Method	Value	Duration	Value termination
OECD 301B: CO2 Evolution Test	80% - 90%; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air):

Method	Value	Duration	Value termination
SRC AOP v1.92	14 h	500000 /cm³	Calculated value

Conclusion:
Contains non-readily biodegradable component(s).

12.3 Bioaccumulative potential

Liquid PVC 81038:

Log Kow:

Method	Remark	Value	Temperature	Value determination
	N/A (mixture)			

Tetrahydrofuran:

BCF other aquatic organisms:

Parameter	Method	Value	Duration	Species	Value determination
BCF		3.16			Literature study

Log Kow:

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		0.45	25°C	Experimental value

Silica, Pyrogenic:

Log Kow:

Method	Remark	Value	Temperature	Value determination
	N/A			

Cyclohexanone:

BCF other aquatic organisms:

Parameter	Method	Value	Duration	Species	Value determination
BCF		2.14			QSAR

Log Kow:

Method	Remark	Value	Temperature	Value determination
OECD 107		0.86	25°C	Experimental value

Polyvinylchloride:

Log Kow:

Method	Remark	Value	Temperature	Value determination
	No data available			

Bis(2-Propylheptyl) Phthalate:

BCF fishes:

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	< 14.4	56 days	Cyprinus carpio	Read-across

Log Kow:

Method	Remark	Value	Temperature	Value determination
		10.7		Calculated
		10.6 – 10.8	25°C	Calculated

Titanium Dioxide:

Log Kow:

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion:
Does not contain bioaccumulative components.

12.4 Mobility in soil

Tetrahydrofuran:

(log) Koc:

Parameter	Method	Value	Value determination
log Koc	Other	1.26 – 1.37	Experimental value

Cyclohexanone:

(log) Koc:

Parameter	Method	Value	Value determination
Log Koc	SRC PCKOCWIN v1.66	1.18	Calculated value

Volatility (Henry's Law constant H):

Value	Method	Temperature	Remark	Value determination
1.21 Pa.m³/mol	EPI Suite	25 °C		Experimental value

Percentage distribution:

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	43.6 %	0 %	0.03 %	0.03 %	56.4 %	Calculated value

Bis(2-Propylheptyl) Phthalate:

(log) Koc:

Parameter	Method	Value	Value determination
log Koc	OECD 121	6.8	Experimental value
	OECD 121	> 5.63	Experimental value
Koc	OECD 121	> 426580	Experimental value

Volatility (Henry's Law constant H):

Value	Method	Temperature	Remark	Value determination
3.72 Pa.m³/mol	SRC HENRYWIN v3.10	25 °C		Calculated value

Conclusion:
Contains component(s) that adsorb(s) into the soil.
Contains component(s) with potential for mobility in the soil.

12.5 Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects

Liquid PVC 81038:
Fluorinated greenhouse gases (Regulation (EU) No 517/2014):
None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014).
Ozone-depleting potential (ODP):
Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Tetrahydrofuran:
Groundwater:
Groundwater pollutant.

13. DISPOSAL CONSIDERATIONS

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods

Provisions relating to waste European Union:
Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
08 04 09* (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants containing organic solvents or other hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

Disposal methods:
Recycle/reuse. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste.
Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

Packaging/Container:
European Union:
Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

14. TRANSPORT INFORMATION

Road (ADR):

14.1 UN number	2056.	
14.2 UN proper shipping name	Tetrahydrofuran, mixture.	
14.3 Transport hazard class(es)	Hazard identification No:	33.
	Class:	3.
	Classification code:	F1.
14.4 Packing group	II.	
	Labels:	3.
14.5 Environmental hazard	No.	

14.6 Special precautions for user

Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID):

14.1 UN number	2056.	
14.2 UN proper shipping name	Tetrahydrofuran, mixture.	
14.3 Transport hazard class(es)	Hazard identification No:	33.
	Class:	3.
	Classification code:	F1.
14.4 Packing group	II.	
	Labels:	3.
14.5 Environmental hazard	No.	

14.6 Special precautions for user

Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN):

14.1 UN number	2056.	
14.2 UN proper shipping name	Tetrahydrofuran, mixture.	
14.3 Transport hazard class(es)	Class:	3.
	Classification code:	F1.
14.4 Packing group	II.	
	Labels:	3.
14.5 Environmental hazard	No.	

14.6 Special precautions for user

Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC):

14.1 UN number	2056.	
14.2 UN proper shipping name	Tetrahydrofuran, mixture.	
14.3 Transport hazard class(es)	Class:	3.
14.4 Packing group	II.	
	Labels:	3.
14.5 Environmental hazard	No.	

14.6 Special precautions for user

Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Air (ICAO-TI/IATA-DGR):

14.1 UN number	2056.	
14.2 UN proper shipping name	Tetrahydrofuran, mixture.	
14.3 Transport hazard class(es)	Class:	3.
14.4 Packing group	II.	
	Labels:	3.
14.5 Environmental hazard	No.	

14.6 Special precautions for user

Passenger and cargo transport:

Limited quantities: maximum net quantity per packaging	1L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION

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

European legislation:

VOC content Directive 2010/75/EU:
75%.

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC and 2009/161/EU):

Product name	Skin resorption
Cyclohexanone	Skin
Tetrahydrofuran	Skin

REACH Annex XVII – Restriction:
Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	**Conditions of restriction**
Tetrahydrofuran Cyclohexanone	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; c) hazard class 4.1; d) hazard class 5.1.	1. Shall not be used in: - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, - tricks and jokes, - games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: can be used as fuel in decorative oil lamps for supply to the general public, and, present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation(CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging andlabelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lungdamage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled

		H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
Tetrahydrofuran Cyclohexanone	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: - metallic glitter intended mainly for decoration, - artificial snow and frost, - "whoopee" cushions, - silly string aerosols, - imitation excrement, - horns for parties, - decorative flakes and foams, - artificial cobwebs, stink bombs. 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only". 3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC. 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

Other relevant data:

Liquid PVC 81038:
No data available.

Tetrahydrofuran:

TLV - carcinogen:	Tetrahydrofuran; A3.
IARC - classification	2B; Tetrahydrofuran.
Skin absorption:	Tetrahydrofuran; Skin; Danger of cutaneous absorption.

Silica, Pyrogenic:

IARC – classification:	3; Silica.

Cyclohexanone:

TLV – carcinogen:	Cyclohexanone; A3.
IARC - classification	3; Cyclohexanone.
Skin absorption	Cyclohexanone; Skin; Danger of cutaneous absorption.

Polyvinylchloride:

TLV - carcinogen	Polyvinyl chloride (PVC); A4.
IARC - classification	3; Vinyl chloride, polyvinyl chloride and vinyl chloride-vinyl acetate copolymers.

Titanium Dioxide:

TLV - carcinogen	Titanium dioxide; A4.
IARC - classification	2B; Titanium dioxide.

15.2 Chemical Safety Assessment

No chemical safety assessment has been conducted for the mixture.

Tetrahydrofuran:
A chemical safety assessment has been performed.

Cyclohexanone:
A chemical safety assessment has been performed.

16. OTHER INFORMATION

Full text of any H-statements referred to under heading 3:

H225:	Highly flammable liquid and vapour.
H226:	Flammable liquid and vapour.
H302:	Harmful if swallowed.
H312:	Harmful in contact with skin.
H315:	Causes skin irritation.
H318:	Causes serious eye damage.
H319:	Causes serious eye irritation.
H332:	Harmful if inhaled.
H335:	May cause respiratory irritation.
H336:	May cause drowsiness or dizziness.
H351:	Suspected of causing cancer.

(*):	INTERNAL CLASSIFICATION BY BIG.
ADI:	Acceptable daily intake.
AOEL:	Acceptable operator exposure level.
CLP (EU-GHS):	Classification, labelling and packaging (Globally Harmonised System in Europe).
DMEL:	Derived Minimal Effect Level.
DNEL:	Derived No Effect Level.
EC50:	Effect Concentration 50%.
ErC50:	EC50 in terms of reduction of growth rate.
LC50:	Lethal Concentration 50%.
LD50:	Lethal Dose 50%.
NOAEL:	No Observed Adverse Effect Level.
NOEC:	No Observed Effect Concentration.
OECD:	Organisation for Economic Co-operation and Development.
PBT:	Persistent, Bioaccumulative & Toxic.
PNEC:	Predicted No Effect Concentration.
STP:	Sludge Treatment Process.
vPvB:	very Persistent & very Bioaccumulative.

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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