

The supplier of the product is, among those indicated above, the one identified on the label and / or in the sales documents

For further information, please contact

E-mail address sales@triroof.co.uk
Internet Address http://www.triroof.co.uk

1.4. Emergency telephone number

This telephone number is available 24 hours per day, 7 days per week.	
Europe :	+44 1235 239 670
Middle East/Africa :	+44 1235 239 671
East/South East Asia :	+65 3158 1412
America :	+1 215 207 0061

Poison Information Centre telephone number European emergency phone number : 112
 UK : National Poisons Emergency Number : 0845 4647
 Ireland : National Poisons Information Centre (NPIC) Telephone Healthcare
 Professionals : +353 (01) 809 2566. (24 hour service) Telephone Members of Public :
 +353 (01) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the substance or mixture - GHS/CLP (n° 1272/2008)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1 Sub-category 1A
Reproductive Toxicity	Category 2
Specific Target Organ Toxicity (Single Exposure)	Category 3
Specific target organ toxicity - repeated exposure	Category 1
Chronic Aquatic Toxicity	Category 3
Flammable liquids	Category 3

2.2. Label elements

Contains cobalt octoate, Styrene



Signal word

Danger

Hazard statements

H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H361d - Suspected of damaging the unborn child
 H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
 H412 - Harmful to aquatic life with long lasting effects
 H226 - Flammable liquid and vapour

Physical hazards

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Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
 P243 - Take action to prevent static discharges
 P260 - Do not breathe vapour
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 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

PBT/vPvB see section 12.5.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight percent	GHS Classification
Styrene	202-851-5	01-2119457861-32	100-42-5	~ 39	Flam. Liq. 3 (H226) Repr. 2 (H361d) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Asp. Tox. 1 (H304) STOT SE 3 (H335) STOT RE 1 (H372) Aquatic Chronic 3 (H412)
Titanium dioxide	236-675-5	01-2119489379-17	13463-67-7	~ 17	-
glass, oxide, chemicals	266-046-0	No data available	65997-17-3	~ 10	-
Talc	238-877-9	01-2120140278-58	14807-96-6	~ 8	-
Barium sulfate	231-784-4	01-2119491274-35	7727-43-7	~ 4	-
Silica, amorphous, fumed, crystalline-free	231-545-4	01-2119379499-16	112945-52-5	~ 3	-
Naphtha (petroleum), hydrodesulfurized heavy	265-185-4	01-2119490979-12	64742-82-1	~ 0.5	Flam. Liq. 3 (H226) Asp. Tox. 1 (H304) STOT SE 3 (H336) Aquatic Chronic 2 (H411)
(2-methoxymethylethoxy)propanol	252-104-2	01-2119450011-60	34590-94-8	< 0.5	-
Paraffin waxes and Hydrocarbon waxes	232-315-6	01-2119488076-30	8002-74-2	< 0.5	-
cobalt octoate	205-250-6	01-2119524678-29	136-52-7	~ 0.1	Skin Sens. 1A (H317) Eye Irrit. 2 (H319) Repr. 1B (H360Fd) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Potassium 2-ethylhexanoate	221-625-7	01-2119980714-29	3164-85-0	~ 0.1	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Repr. 2 (H361)

For the full text of the H-Statements mentioned in this Section, see Section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Show this safety data sheet to the doctor in attendance Do not breathe dust/fume/gas/mist/vapours/spray
Eye Contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If symptoms persist, call a physician
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes If skin irritation persists, call a physician
Inhalation	Move to fresh air If not breathing, give artificial respiration Consult a physician
Ingestion	Do NOT induce vomiting Rinse mouth. Consult a physician
Protection of first-aiders	Use personal protective equipment See section 8 for more information

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

Eye Contact	Irritating to eyes
Skin contact	Irritating to skin May cause sensitisation by skin contact
Inhalation	Harmful: danger of serious damage to health by prolonged exposure through inhalation Irritating to respiratory system
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Notes to physician	No information available
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media	Dry chemical, Foam, Carbon dioxide (CO ₂), (closed systems)
Extinguishing Media Which Must not be Used for Safety Reasons	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases	Vapours may form explosive mixtures with air. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) Heating or fire can release toxic gas : Carbon monoxide
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5.3. Advice for firefighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Personal precautions Remove all sources of ignition
Heat, flames and sparks.
Take precautionary measures against static charges.
Ensure adequate ventilation
Use personal protective equipment

For emergency responders

Avoid breathing vapours or mists In the event of fire and/or explosion do not breathe fumes. Use personal protective equipment

6.2. Environmental precautions

Environmental precautions The product should not be allowed to enter drains, water courses or the soil.
Do not flush into surface water or sanitary sewer system

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13)
Use clean non-sparking tools to collect absorbed material

6.4. Reference to other sections

See section 8 for more information
See Section 12 for additional Ecological Information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Avoid static electricity build up with connection to earth
Use only in area provided with appropriate exhaust ventilation
In case of insufficient ventilation, wear suitable respiratory equipment
For personal protection see section 8

Prevention of fire and explosion Keep away from open flames, hot surfaces and sources of ignition Empty containers may contain flammable or explosive vapours

Hygiene measures When using, do not eat, drink or smoke Wash hands before breaks and at the end of workday. Provide regular cleaning of equipment, work area and clothing

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep in a dry, cool and well-ventilated place.
Keep at temperature not exceeding 30°C
Keep away from heat and sources of ignition.

Materials to avoid Strong oxidizing agents, Catalyst, Peroxides, Reducing agents

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Packaging material metallic GRP Tanks (Reinforced Glass Polyester)

Unsuitable materials for containers copper, Copper alloys, Bronze, Zinc

7.3. Specific end use(s)

Specific use(s) No information available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure limits**

Chemical Name	European Union	ACGIH OEL (Ceiling)	The United Kingdom	Ireland
Styrene 100-42-5	-	TLV-8h TWA: 20 ppm - 85 mg/m ³ TLV-15min STEL: 40 ppm - 170 mg/m ³	STEL 250 ppm STEL 1080 mg/m ³ TWA 100 ppm TWA 430 mg/m ³	TWA 20 ppm TWA 85 mg/m ³ STEL 40 ppm STEL 170 mg/m ³
Titanium dioxide 13463-67-7		TWA 10 mg/m ³	STEL 30 mg/m ³ STEL 12 mg/m ³ TWA 10 mg/m ³ TWA 4 mg/m ³	TWA 10 mg/m ³ TWA 4 mg/m ³
Talc 14807-96-6		TWA 2 mg/m ³	STEL 3 mg/m ³ TWA 1 mg/m ³	TWA 10 mg/m ³ TWA 0.8 mg/m ³
Barium sulfate 7727-43-7	TWA 0.5 mg/m ³	TWA 10 mg/m ³	STEL 30 mg/m ³ STEL 12 mg/m ³ STEL 1.5 mg/m ³ TWA 10 mg/m ³ TWA 4 mg/m ³ TWA 0.5 mg/m ³	TWA 2 mg/m ³ TWA 0.5 mg/m ³
(2-methoxymethylethoxy)propanol 34590-94-8	TWA 50 ppm TWA 308 mg/m ³ S*	TWA 100 ppm	STEL 150 ppm STEL 924 mg/m ³ TWA 50 ppm TWA 308 mg/m ³ Skin	TWA 50 ppm TWA 308 mg/m ³ Skin
Paraffin waxes and Hydrocarbon waxes 8002-74-2		TWA 2 mg/m ³	STEL 6 mg/m ³ TWA 2 mg/m ³	TWA 2 mg/m ³ STEL 6 mg/m ³
cobalt octoate 136-52-7		0.02 mg/m ³	STEL 0.3 mg/m ³ TWA 0.1 mg/m ³ Sen+	TWA 0.1 mg/m ³ Sensitizer

Special hazards arising from the substance or mixture

Biological standards**Derived No Effect Level (DNEL)**

Derived No Effect Level (DNEL)				
Styrene (100-42-5)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Systemic effect		406 mg/Kg bw/day	85 mg/m ³	
Workers - Acute Short Term - Local effect			306 mg/m ³	
Workers - Acute Short term - Systemic effect			289 mg/m ³	
General Population - Acute Short Term - Local effect			182.7 mg/m ³	
General Population - Acute Short Term - Systemic effect			174.2 mg/m ³	
General Population - Long Term - Systemic effect	2.1 mg/Kg bw/day	343 mg/Kg bw/day	10.2 mg/m ³	

Titanium dioxide (13463-67-7)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Local effect			10 mg/m ³	

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General Population - Long Term - Systemic effect	700 mg/kg bw/day			
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Talc (14807-96-6)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Acute Short term - Systemic effect			2.16 mg/m ³	
Workers - Acute Short Term - Local effect			3.6 mg/m ³	
Workers - Long Term - Systemic effect		43.2 mg/kg bw/day	2.16 mg/m ³	
Workers - Long Term - Local effect		4.54 mg/cm ²	3.6 mg/m ³	
General Population - Acute Short Term - Systemic effect			1.08 mg/m ³	
General Population - Acute Short Term - Local effect			1.8 mg/m ³	
General Population - Long Term - Systemic effect	160 mg/kg bw/day	21.6 mg/kg bw/day	1.08 mg/m ³	
General Population - Long Term - Local effect		2.27 mg/cm ²	1.8 mg/m ³	

Barium sulfate (7727-43-7)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Systemic effect			10 mg/m ³	
General Population - Long Term - Systemic effect	13000 mg/kg bw/day		10 mg/m ³	

Silica, amorphous, fumed, crystalline-free (112945-52-5)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Systemic effect			4 mg/m ³	

(2-methoxymethylethoxy)propanol (34590-94-8)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Systemic effect		283 mg/kg bw/day	308 mg/m ³	
General Population - Long Term - Systemic effect	36 mg/kg bw/day	121 mg/kg bw/day	37.2 mg/m ³	

cobalt octoate (136-52-7)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Local effect			235.1 µg/m ³	
General Population - Long Term - Systemic effect	175 µg/kg bw/day			
General Population - Long Term - Local effect			37 µg/m ³	

Potassium 2-ethylhexanoate (3164-85-0)				
Type	DNEL oral	DNEL dermal	DNEL inhalation	Remark
Workers - Long Term - Systemic effect		12 mg/kg bw/day	32 mg/m ³	
Workers - Long Term - Systemic effect	2.5 mg/kg bw/day	6 mg/kg bw/day	8 mg/m ³	

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Predicted No Effect Concentration (PNEC)

PNEC Component		
Styrene (100-42-5)		
Exposure	Type	PNEC
Fresh water	PNEC Aqua	0.028 mg/L
Marine water	PNEC Aqua	0.014 mg/L
Intermittent use/release	PNEC Aqua	0.04 mg/L
Fresh water	PNEC Sediment	0.614 mg/Kg.dw
Marine water	PNEC Sediment	0.307 mg/Kg.dw
Terrestrial Compartment	PNEC Soil	0.2 mg/Kg.dw
STP microorganisms	PNEC STP	5 mg/L

Titanium dioxide (13463-67-7)		
Exposure	Type	PNEC
Fresh water	PNEC Aqua	0.127 mg/L
Marine water	PNEC Aqua	1 mg/L
Intermittent use/release	PNEC Aqua	0.61 mg/L
	PNEC STP	100 mg/L
Fresh water	PNEC Sediment	1000 mg/kg sediment dw
Marine water	PNEC Sediment	100 mg/kg sediment dw
	PNEC Soil	100 mg/kg soil dw
Secondary Poisoning	PNEC Oral	1667 mg/kg food

Talc (14807-96-6)		
Exposure	Type	PNEC
Marine water	PNEC Aqua	141.26 mg/L
Fresh water	PNEC Aqua	597.97 mg/L
Marine water	PNEC Sediment	3.13 mg/kg sediment dw
Fresh water	PNEC Sediment	31.33 mg/kg sediment dw

Barium sulfate (7727-43-7)		
Exposure	Type	PNEC
Fresh water	PNEC Aqua	227.8 mg/L
	PNEC STP	50.1 mg/L
Fresh water	PNEC Sediment	792.7 mg/kg sediment dw
	PNEC Soil	207.7 mg/kg soil dw

Silica, amorphous, fumed, crystalline-free (112945-52-5)		
Exposure	Type	PNEC
Secondary Poisoning	PNEC Oral	60000 mg/kg

(2-methoxymethylethoxy)propanol (34590-94-8)		
Exposure	Type	PNEC
Marine water	PNEC Aqua	1.9 mg/L
Fresh water	PNEC Aqua	19 mg/L
Intermittent use/release	PNEC Aqua	190 mg/L
	PNEC STP	4168 mg/L
Fresh water	PNEC Sediment	70.2 mg/kg sediment dw
Marine water	PNEC Sediment	7.02 mg/kg sediment dw
	PNEC Soil	2.74 mg/kg soil dw

cobalt octoate (136-52-7)		
Exposure	Type	PNEC
Fresh water	PNEC Aqua	0.62 µg/L
Marine water	PNEC Aqua	2.36 µg/L
STP microorganisms	PNEC STP	0.37 mg/L
Fresh water	PNEC Sediment	53.8 mg/kg sediment dw
Marine water	PNEC Sediment	69.8 mg/kg sediment dw
Terrestrial Compartment	PNEC Soil	10.9 mg/kg soil dw

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Potassium 2-ethylhexanoate (3164-85-0)		
Exposure	Type	PNEC
Marine water	PNEC Aqua	0.036 mg/L
Fresh water	PNEC Aqua	0.36 mg/L
Intermittent use/release	PNEC Aqua	0.493 mg/L
	PNEC STP	71.7 mg/L
Fresh water	PNEC Sediment	6.37 mg/kg sediment dw
Marine water	PNEC Sediment	0.637 mg/kg sediment dw
	PNEC Soil	1.06 mg/kg soil dw

8.2. Exposure controls

Occupational exposure controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits.
When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment

Personal protective equipment

General Information Respiratory protection

Use personal protective equipment.
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)
If exposure limits are likely to be exceeded / In case of insufficient ventilation wear suitable respiratory equipment :

Breathing apparatus with filter Type A (Organic gases and vapours filter conforming to EN 14387 , APF 40 < 1 hour, APF 200 > 1 hour) / Type A(2)/P3 in combination with Particulates filter conforming to EN 143 , if exposed to dust

Eye protection Skin and body protection Hand protection

Safety glasses with side-shields. Do not wear contact lenses.
Antistatic boots. Protective shoes or boots. Wear fire/flame resistant/retardant clothing.
Wear chemically resistant gloves (tested to EN 374) in combination with 'basic' employee training
Glove material : Neoprene , Nitriles , Viton (R) or Polyvinyl alcohol
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Environmental exposure controls

Environmental exposure controls Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Values	Remark
Appearance	Variable (This Data Sheet includes all the colours)	
Physical state	Liquid	
Particle size		no data available
Odour	Styrene	
Odour Threshold	0.15 ppm	Values related to styrene
pH		no data available
pH (as aqueous solution)		no data available
Melting point/range	- 30 °C	Values related to styrene
Freezing Point		no data available
Boiling point	145 °C	Values related to styrene
Flash point	31 °C	Values related to styrene
Evaporation rate		no data available
Flammability Limits in Air		
upper	6,1 - 6,8%	Values related to styrene
lower	0,9 -1,1%	Values related to styrene
Vapour pressure	6.52 mbar	20°C

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Vapour density	3.6	Values related to styrene
Density	1.1 - 1.4 g/cm ³	20°C
Water solubility	Insoluble in water	
Partition coefficient: n-octanol/water	3	Values related to styrene
Autoignition temperature	490 °C	Values related to styrene
Decomposition temperature		no data available
Viscosity, kinematic	15455 - 27273 mm ² /s	20°C
Viscosity, dynamic	17000 - 30000 mPa.s	20°C
Explosive properties		not applicable
Oxidizing properties		not applicable

9.2. Other information

Property	Values	Remark
Solubility in other solvents	Soluble in most organic solvents	

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Product may ignite and burn at temperatures exceeding the flash point

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions In use, may form flammable/explosive vapour-air mixture.

Hazardous polymerisation Polymerisation can occur.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.
Exposure to light.
Take precautionary measures against static charges.

10.5. Incompatible materials

Materials to avoid Strong oxidizing agents, Catalyst, Peroxides, Reducing agents

10.6. Hazardous decomposition products

Hazardous decomposition products Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Inhalation Harmful: danger of serious damage to health by prolonged exposure through inhalation
Irritating to respiratory system

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation	Read-across (Analogy)
Styrene 100-42-5	5000 mg/kg (Rat)	> 2000 mg/kg bw (Rat) 24h OECD 402	11.8 mg/L (Rat) 4h CSR	
Titanium dioxide 13463-67-7	> 5000 mg/kg bw (Rat) OECD 425	> 10000 mg/kg (Rabbit)	> 6,82 mg/L air (Rat) 4h	
glass, oxide, chemicals 65997-17-3	2000 - 5000 mg/kg (estimated)	> 5000 mg/kg (estimated)		
Talc 14807-96-6	> 5000 mg/kg bw (Rat) OECD 423	> 2000 mg/kg bw (Rat) OECD 402		

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Barium sulfate 7727-43-7	> 5000 mg/kg bw (Rat) OECD 401	> 2000 mg/kg bw (Rat) OECD 408 Read across with Cas N° : 10361-37-2		
Silica, amorphous, fumed, crystalline-free 112945-52-5	> 5000 mg/kg bw (Rat) OECD 401	> 5000 mg/kg (Rabbit)	> 0.14 mg/L air (Rat) 4h (analytical) OECD 403	
(2-methoxymethylethoxy)pr opropanol 34590-94-8	> 5000 mg/kg bw (Rat) Similar to OECD 401	9510 mg/kg bw(Rabbit) 24h Similar to OECD 402	LC0 (7h) > 275 ppm (1667 mg/m ³) (Rat) Similar to OECD 403	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	> 5000 mg/kg bw (Rat) OECD 420	> 2000 mg/kg bw (Rat) OECD 402		
cobalt octoate 136-52-7	3129 mg/kg/bw (Rat) OECD 425	> 2000 mg/kg bw (Rat) OECD 402		
Potassium 2-ethylhexanoate 3164-85-0	2043 mg/kg bw (Rat) OECD 401	> 2000 mg/kg bw (Rat) OECD 402	LC0 = 0.11 mg/L air (Rat, vapour) 8h OECD 436 Read across with 2-ethylhexanoic acid Cas N° : 149-57-5	

Skin corrosion/irritation

Chemical Name	Skin corrosion/irritation	Read-across (Analogy)
Styrene 100-42-5	Irritating to skin in vivo assay rabbit	
Titanium dioxide 13463-67-7	No skin irritation No skin corrosion in vivo assay rabbit OECD 404	
Talc 14807-96-6	No skin irritation in vivo assay in vitro study rabbit OECD 404 EU Method B.46	
Barium sulfate 7727-43-7	No skin irritation in vitro study OECD Guidelines for Testing of Chemicals + Commission regulation (EC) No. 440/2008 B.46	barium dichloride dihydrate Cas N° : 10326-27-9
Silica, amorphous, fumed, crystalline-free 112945-52-5	No skin irritation rabbit OECD 404	
(2-methoxymethylethoxy)propanol 34590-94-8	No skin irritation in vivo assay rabbit similar to OECD 404	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	No skin irritation in vivo assay rabbit OECD 404	
cobalt octoate 136-52-7	No skin corrosion in vitro study OECD 431 EU Method B. 40	
Potassium 2-ethylhexanoate 3164-85-0	Irritating to skin in vivo assay rabbit OECD 404	

Serious Eye Damage/Eye Irritation

Chemical Name	Serious Eye Damage/Eye Irritation	Read-across (Analogy)
Styrene 100-42-5	Irritating to eyes in vivo assay rabbit	

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Titanium dioxide 13463-67-7	No eye irritation in vivo assay rabbit OECD 405	
Talc 14807-96-6	No eye irritation in vivo assay (rabbit) OECD 405	
Barium sulfate 7727-43-7	No eye irritation in vivo assay rabbit OECD 405	
Silica, amorphous, fumed, crystalline-free 112945-52-5	No eye irritation rabbit OECD 405	
(2-methoxymethylethoxy)propanol 34590-94-8	No eye irritation in vivo assay	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	No eye irritation in vivo assay rabbit OECD 405	
cobalt octoate 136-52-7	Moderate eye irritation OECD 437 EU Method B.47 Irritating to eyes rabbit OECD 405	
Potassium 2-ethylhexanoate 3164-85-0	Ambiguous in vitro study Bovine OECD 437 EU Method B.47	

Respiratory or skin sensitisation May cause sensitisation by skin contact

Chemical Name	Respiratory or skin sensitisation	Read-across (Analogy)
Styrene 100-42-5	Does not cause skin sensitization Does not cause respiratory sensitization CSR	
Titanium dioxide 13463-67-7	Does not cause skin sensitization in vivo assay guinea pig OECD 406 mouse OECD 429	
Talc 14807-96-6	Does not cause skin sensitization in vivo assay guinea pig OECD 406	
Barium sulfate 7727-43-7	Does not cause skin sensitization in vivo assay mouse OECD 429	barium dichloride dihydrate Cas N° : 10326-27-9
Silica, amorphous, fumed, crystalline-free 112945-52-5	Does not cause skin sensitization Does not cause respiratory sensitization	
(2-methoxymethylethoxy)propanol 34590-94-8	Does not cause skin sensitization in vivo assay	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	Does not cause skin sensitization in vivo assay guinea pig OECD 406 EU Method B.6	
cobalt octoate 136-52-7	May cause sensitisation by skin contact in vivo assay mouse OECD 429	

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Potassium 2-ethylhexanoate 3164-85-0	Does not cause skin sensitization in vivo assay guinea pig OECD 406	2-ethylhexanoic acid Cas N° : 149-57-5
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Mutagenic Effects**in vitro study**

Chemical Name	Ames test	Read-across (Analogy)
Styrene 100-42-5	Ambiguous In vitro gene mutation study in bacteria (S. typhimurium G46, TA1530, TA 1535, TA100, TA98, TA1538, TA 1537) OECD 471	
Titanium dioxide 13463-67-7	negative In vitro gene mutation study in bacteria OECD 471	
Talc 14807-96-6	negative In vitro gene mutation study in bacteria Salmonella sp. similar to OECD 471 EU Method B.13/14	
Barium sulfate 7727-43-7	negative In vitro gene mutation study in bacteria (S. typhimurium TA 1535, TA 1537, TA 98 and TA 100) OECD 471	barium dichloride dihydrate Cas N° : 10326-27-9
Silica, amorphous, fumed, crystalline-free 112945-52-5	negative In vitro gene mutation study in bacteria OECD 471	
(2-methoxymethylethoxy)propanol 34590-94-8	negative In vitro gene mutation study in bacteria (Escherichia coli WP2 uvrA) similar to OECD 471	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	negative In vitro gene mutation study in bacteria (S. typhimurium TA 1535, TA 1537, TA 98 and TA 100) (Escherichia coli WP2 uvrA) OECD 471	
cobalt octoate 136-52-7	negative In vitro gene mutation study in bacteria (S. typhimurium TA 1535, TA 1537, TA 98, TA100 and TA 102) OECD 471	Cas N°: 68956-82-1, 14024-48-7
Potassium 2-ethylhexanoate 3164-85-0	negative In vitro gene mutation study in bacteria (S. typhimurium TA 1535, TA 1537, TA 98 and TA 100) OECD 471	2-ethylhexanoic acid Cas N° : 149-57-5

Chemical Name	In vitro Mammalian Cell Gene Mutation Test	Read-across (Analogy)
Styrene 100-42-5	Ambiguous In vitro gene mutation study in mammalian cells hamster OECD 476	
Titanium dioxide 13463-67-7	negative In vitro gene mutation study in mammalian cells mouse OECD 476	
Barium sulfate 7727-43-7	negative In vitro gene mutation study in mammalian cells mouse OECD 476	barium dichloride dihydrate Cas N° : 10326-27-9
Silica, amorphous, fumed, crystalline-free 112945-52-5	negative In vitro gene mutation study in mammalian cells OECD 476	

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(2-methoxymethylethoxy)propanol 34590-94-8	negative In vitro gene mutation study in mammalian cells rat similar to OECD 482	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	negative In vitro gene mutation study in mammalian cells mouse OECD 476	
cobalt octoate 136-52-7	negative In vitro gene mutation study in mammalian cells mouse OECD 476	Cas N°: 7440-48-4, 1308-06-1, 10124-43-3, 12016-80-7
Potassium 2-ethylhexanoate 3164-85-0	negative In vitro gene mutation study in mammalian cells mouse hamster OECD 476 EPA OTS 798.5300	2-ethylhexanoic acid Cas N° : 149-57-5
Chemical Name	In vitro Mammalian Chromosome Aberration Test	Read-across (Analogy)
Styrene 100-42-5	positive Chromosome aberration test in vitro OECD 473 OECD 479	
Titanium dioxide 13463-67-7	negative Chromosome aberration test in vitro hamster OECD 473	
Talc 14807-96-6	negative Chromosome aberration test in vitro rat similar to OECD 473 EU Method B.10	
Barium sulfate 7727-43-7	negative Chromosome aberration test in vitro hamster OECD 473	barium dichloride dihydrate Cas N° : 10326-27-9
Silica, amorphous, fumed, crystalline-free 112945-52-5	negative Chromosome aberration test in vitro OECD 473	
(2-methoxymethylethoxy)propanol 34590-94-8	negative Chromosome aberration test in vitro hamster similar to OECD 473	
Paraffin waxes and Hydrocarbon waxes 8002-74-2	negative Chromosome aberration test in vitro hamster similar to OECD 473	
Potassium 2-ethylhexanoate 3164-85-0	negative Chromosome aberration test in vitro OECD 473	2-ethylhexanoic acid Cas N° : 149-57-5

in vivo assay

Chemical Name	Unscheduled DNA Synthesis (UDS)	Read-across (Analogy)
Styrene 100-42-5	negative mouse OECD 486 OECD 474	
Titanium dioxide 13463-67-7	negative mouse	
Silica, amorphous, fumed, crystalline-free 112945-52-5	negative rat	

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Paraffin waxes and Hydrocarbon waxes 8002-74-2	negative mouse similar to OECD 474	
cobalt octoate 136-52-7	negative rat OECD 474 OECD 475	Cas N°: 68956-82-1, 14024-48-7, 10026-24-1
Potassium 2-ethylhexanoate 3164-85-0	negative mouse OECD 474	

Carcinogenicity**Carcinogenicity****Styrene (100-42-5)**

Exposure routes	Method	Species	Dose	Evaluation
Inhalation	OECD 453	rat	NOAEC systemic (carcinogenicity) >= 4.34 mg/L air (nominal)	negative
Inhalation	OECD 453	mouse	LOAEC (carcinogenicity) female/male = 0.09 - 0.18 mg/L air resp., NOAEC (carcinogenicity) male = 0.09 mg/L air	positive
Oral	No information available	rat	NOAEL (carcinogenicity) >= 2000 mg/kg bw /day	positive
Oral	No information available	mouse	LOAEL (carcinogenicity) = 150 mg/kg bw /day	positive

Titanium dioxide (13463-67-7)

Exposure routes	Method	Species	Dose	Evaluation
Inhalation	OECD 453	rat	NOAEC lung tumours = 5 mg/m ³ air	negative
Oral	No information available	rat	NOEL toxicity > 50000 ppm (nominal)	negative

Talc (14807-96-6)

Exposure routes	Method	Species	Dose	Evaluation
Oral	OECD 453	rat	NOAEL (101d) = 100 mg/kg bw/day	negative
Inhalation	OECD 453	mouse	NOAEC (104 weeks) = 6-18 mg/m ³ air	negative
Inhalation	OECD 453	rat	NOAEC = 6-18 mg/m ³ air	negative

Barium sulfate (7727-43-7)

Exposure routes	Method	Species	Dose	Evaluation
Oral	Read across with barium dichloride dihydrate Cas N° : 10326-27-9	rat	NOAEL carcinogenicity (male) = 60 mg/kg bw/day NOAEL carcinogenicity (female) = 75 mg/kg bw/day	negative

Silica, amorphous, fumed, crystalline-free (112945-52-5)

Exposure routes	Method	Species	Dose	Evaluation
Oral	OECD 453	rat	NOAEL = 1800 - 3200 mg/kg bw/day	negative

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Exposure routes	Method	Species	Dose	Evaluation
Dermal		mouse	NOEL (carcinogenicity) = 128 mg/kg bw/day	negative

Reproductive toxicity**Reproductive toxicity****Styrene (100-42-5)**

Exposure routes	Method	Species	Dose	Evaluation
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Inhalation	No information available	rat	NOAEL/LOAEL (fertility) 60d = 100 - 200 mg/kg bw/day	positive
Oral	OECD 422	rat	NOAEL/LOAEL (fertility) 60d = 200 - 400 mg/kg bw/day	positive
Inhalation	OECD 416	rat	NOAEC (P, F1) = 0.64 mg/L air LOAEC (P, F1) = 2.13 mg/L air NOAEC (F2) = 0.21 mg/L air LOAEC (F2) = 0.64 mg/L air (70d)	negative

Talc (14807-96-6)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	similar to OECD 416	rabbit	NOAEL (reproduction & F1) > 900 mg/kg bw/day	negative

Silica, amorphous, fumed, crystalline-free (112945-52-5)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	OECD 415	rat	NOAEL = 497 mg/kg bw/day	negative

Paraffin waxes and Hydrocarbon waxes (8002-74-2)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	OECD 421	rat	NOAEL (p/ reproductive performance) >= 1000 mg/kg bw/day NOAEL Neonatal (F1) >= 1000 mg/kg bw/day Read across with : Chevron 100 Neutral	negative

cobalt octoate (136-52-7)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	Read-across (Analogy) Cas N°: 7440-48-4 OECD 422	rat	NO(A)EL (P&F1) 28d = 30 mg/kg bw/day	positive

Potassium 2-ethylhexanoate (3164-85-0)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	Read-across (Analogy) 2-ethylhexanoic acid Cas N° : 149-57-5	rat	NOAEL (fertility) = 300 mg/kg bw/day	negative

Developmental Toxicity Suspected of damaging the unborn child.

Developmental Toxicity				
Styrene (100-42-5)				
Exposure routes	Method	Species	Dose	Evaluation
Inhalation	No information available	rat	NOAEC/LOAEC (maternal toxicity + developmental toxicity) >50d = 1.08 - 2.15 mg/L air	positive
Inhalation	OECD 414	rat	LOAEC (maternal toxicity) 6-15d = 1.28 mg/L air	positive
Inhalation	OECD 414	rat	NOAEC (developmental toxicity) 6-15d >= 2.56 mg/L air	negative
Inhalation	OECD 414	rabbit	NOAEC (maternal toxicity + developmental toxicity) 6-18d = 2.56 mg/L air	negative

Silica, amorphous, fumed, crystalline-free (112945-52-5)				
Exposure routes	Method	Species	Dose	Evaluation

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Oral	OECD 414	rat	NOAEL (maternal toxicity) = 1350 mg/kg bw/day NOAEL (teratogenicity) = 1350 mg/kg bw/day	negative
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(2-methoxymethylethoxy)propanol (34590-94-8)				
Exposure routes	Method	Species	Dose	Evaluation
Inhalation	EPA OTS 798.4350	rat	NOAEL (maternal tox/teretogenicity) 6-15d = 300 ppm	negative

Paraffin waxes and Hydrocarbon waxes (8002-74-2)				
Exposure routes	Method	Species	Dose	Evaluation
Dermal	OECD 414	rat	LOAEL (maternal toxicity) = 125 mg/kg bw/day NOAEL (teratogenicity) >= 2000 mg/kg bw/day Read across with : 100 SUS solvent refined base oil	negative

Potassium 2-ethylhexanoate (3164-85-0)				
Exposure routes	Method	Species	Dose	Evaluation
Oral	Read-across (Analogy) 2-ethylhexanoic acid Cas N° : 149-57-5	rat	NOAEL (maternal toxicity) = 300 mg/kg bw/day LOAEL (teratogenicity) = 100 mg/kg bw/day	negative

Specific target organ toxicity - single exposure May cause irritation of respiratory tract

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure , target organ(s) : Central nervous system , Ears

STOT - repeated exposure				
Styrene (100-42-5)				
Exposure routes	Method	Species	Dose	Remarks
Inhalation	OECD 412	rat mouse	NOAEC male (28d) = 3.47 mg/L air NOAEC (ototoxicity) 28d = 2.13 mg/L air NOAEC (28d) = 0.181 mg/L air NOAEC (28d) = 0.688 mg/L air	
Inhalation	No information available	rat	NOAEC (nasal tract) = 0.85 mg/L air NOAEC (overall) = 2.13 mg/L air NOAEC (ototoxicity) = 0.85 mg/L air LOAEC (ototoxicity) = 3.41 mg/L air NOAEC (overall) = 2.13 mg/L air	
Oral	No information available	rat	NOAEL (toxicity) = 1000 mg/kg bw/day LOAEL (toxicity) = 2000 mg/kg bw/day	
Oral	No information available	mouse	NOAEL (toxicity) = 150 mg/kg bw /day LOAEL (toxicity) = 300 mg/kg bw /day	
Inhalation	OECD 453	rat	LOAEC local (toxicity) = 0.21 mg/L air	

Titanium dioxide (13463-67-7)				
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Exposure routes	Method	Species	Dose	Remarks
Oral	OECD 407	rat	NOEL (29d) = 24000 mg/kg bw/day	
Inhalation	No information available	rat	NOEC (carcinogenicity) = 50 mg/m ³ air NOEC (non-neoplastic changes) = 10 mg/m ³ air	

Talc (14807-96-6)

Exposure routes	Method	Species	Dose	Remarks
Inhalation	similar to OECD 412	rat	NOAEC (20d) = 2-6-18 mg/m ³	
Oral	similar to OECD 452	rat	NOAEL (101d) = 100 mg/kg bw/day	
Inhalation	similar to OECD 452	rat	NOAEC = 10.8 mg/m ³ air	

Barium sulfate (7727-43-7)

Exposure routes	Method	Species	Dose	Remarks
Oral	Read-across (Analogy) Cas N°: 10326-27-9	rat	NOAEL = 104 mg/kg bw/day	

Silica, amorphous, fumed, crystalline-free (112945-52-5)

Exposure routes	Method	Species	Dose	Remarks
Oral	OECD 408	rat	NOEL (highest dose) 4000 <= 4500 mg/kg bw/day 90d	
Inhalation	OECD 413	rat	NOEC = 1.3 mg/m ³ air NOEC < 1.3 mg/m ³ air 90d	
Dermal	No information available	rabbit	NOAEL >= 10000 mg/kg bw/day	

(2-methoxymethylethoxy)propanol (34590-94-8)

Exposure routes	Method	Species	Dose	Remarks
Oral	KANPOGYO No.700, YAKUHATSU No. 1039.61 and KIKYKU No. 1014	rat	NOEL/NOAEL (4 weeks) = 200/1000 mg/kg	
Inhalation	similar to OECD 413	rat	NOAEL (13 weeks) = 200 ppm	
Dermal	similar to OECD 411	rabbit	NOAEL (90d) = 2850 mg/kg bw/day	

Paraffin waxes and Hydrocarbon waxes (8002-74-2)

Exposure routes	Method	Species	Dose	Remarks
Dermal	Read-across (Analogy) Cas N°: 64742-52-5 OECD 410	rabbit	NOAEL (28d) = 1000 mg/kg bw/day	
Oral	OECD 408	rat	NOAEL (Low melting point wax) = 1.5 mg/kg bw/day NOAEL (High melting point and high sulphur wax) = 1500 mg/kg bw/day 90d	
Dermal	Read-across (Analogy) : Lubricant Base Oils OECD 411	rat	NOAEL (13 weeks) > 2000 mg/kg bw/day	
Dermal	Read-across (Analogy) : MRD-87-016 similar to OECD 453	mouse	NOAEL (male) 24 months >= 150 mg/kg bw/day	

cobalt octoate (136-52-7)

Exposure routes	Method	Species	Dose	Remarks
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Oral	Read-across (Analogy) cobalt dichloride hexahydrate OECD 408	rat	NOAEL (90d) = 3 mg/kg bw/day	
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Potassium 2-ethylhexanoate (3164-85-0)				
Exposure routes	Method	Species	Dose	Remarks
Oral	Read-across (Analogy) Cas N°: 149-57-5 TSCA	rat	NOAEL (male) = 61 mg/kg/day NOAEL (female) = 71 mg/kg/day	
Oral	No information available	mouse	NOAEL (male) = 180 mg/kg/day NOAEL (female) = 205 mg/kg/day	

Aspiration hazard Due to the viscosity, this product does not present an aspiration hazard.

Other information None

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not flush into surface water or sanitary sewer system

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Styrene 100-42-5	EC50 (72h) = 4.9 mg/L (Pseudokirchnerella subcapitata) EPA OTS 797.1050	EC50 (48h) = 4.7 mg/L (Daphnia magna) NOEC = 1.9 mg/L (Daphnia magna) OECD 202	LC50 (96h) = 4.02 - 10 mg/L (Pimephales promelas) OECD 203	EC (30min) = 500 mg/L (Activated sludge of a predominantly domestic sewage) OECD 209
Titanium dioxide 13463-67-7	EC50 (72h) > 10000 mg/L (Skeletonema costatum) ISO 10253	LC50 (48h) = 20000 mg/L (Daphnia magna)	EC50 (96h) > 100 mg/L (Brachydanio rerio) LC50 (96h) > 1000 mg/L (Fundulus heteroclitus) LC0 (48h) > 1000 mg/L (Leuciscus idus) OECD 203	EC50 (3h) > 1000 mg/L, NOEC (3h) >= 1000 mg/L (Activated sludge of a predominantly domestic sewage) OECD 209
Talc 14807-96-6	EC50 (96h) = 7202.700 mg/L (Green Algae) NOEC (30d) = 918.089 mg/L (Green Algae) QSAR	LC50 (48h) = 36812.359 mg/L (Daphnid species) QSAR	LC50 (96h) = 89581.016 mg/L (Fishes species) QSAR	
Barium sulfate 7727-43-7	EC50 (72h) > 100 mg/L (Pseudokirchnerella subcapitata) NOEC (72h) = 100 mg/L (Pseudokirchnerella subcapitata) OECD 201	EC50 (48h) = 14500 µg/L (Daphnia magna)	LC50 (96h) > 97.5 mg/L (Danio rerio) OECD 203	EC50 (3h) > 1000 mg/L (activated sludge of a predominantly domestic sewage) NOEC (3h) >= 1000 mg/L (activated sludge of a predominantly domestic sewage) OECD 209
Silica, amorphous, fumed, crystalline-free 112945-52-5		EL50 (24h) >= 1000 mg/L (Daphnia magna) OECD 202	LC50 (96h) > 10000 mg/L (Brachydanio rerio) OECD 203	
(2-methoxymethylethoxy)pr opanol 34590-94-8	EC50 (72h) > 969 mg/L (Pseudokirchnerella subcapitata) OECD 201	LC50 (48h) = 1919 mg/L (Daphnia magna) Similar to OECD 202	LC50 (96h) > 1000 mg/L (Poecilia reticulata) OECD 203	EC10 (18h) = 4168 mg/L (Pseudomonas putida) No guideline followed

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Paraffin waxes and Hydrocarbon waxes 8002-74-2	NOEL (72h) >= 100 mg/L (Pseudokirchnerella subcapitata), Read across with : N100DW OECD 201	LL50 (48h) > 1000 mg/L (Daphnia magna) QSAR	LL50 (96h) > 1000 mg/L (Oncorhynchus mykiss) QSAR	LL50 (40h) > 1000 mg/L (Tetrahymena pyriformis) NOEL (40h) >= 1000 mg/L (Tetrahymena pyriformis) QSAR
cobalt octoate 136-52-7	EC50 (72h) = 144 µg Codiss./L (Pseudokirchnerella subcapitata) NOEC (72h) = 32.2 µg./L (Pseudokirchnerella subcapitata) LOEC (72h) = 52.7 µg Codiss./L (Pseudokirchnerella subcapitata) OECD 201		LC50 (96h) = 1.512 mg/L (Oncorhynchus mykiss) NOEC (96h) = 0.939 mg/L (Oncorhynchus mykiss) LOEC (96h) = 1.577 mg/L (Oncorhynchus mykiss) ASTM guideline (1996)	EC10 (30 min) = 3.73 mg/L (Activated sludge) EC50 (30 min) = 120 mg/L (Activated sludge) Read across with Cas N°: 7646-79-9 OECD 209
Potassium 2-ethylhexanoate 3164-85-0	EC50 (72h) = 49.3 mg/L (Desmodesmus subspicatus) OECD 201 Read across with 2-ethylhexanoic acid Cas N° : 149-57-5	EC50 (48h) = 910 mg/L (Daphnia magna) OECD 202 Read across with Cas N° : 16977-89-3	LC50 (96h) > 100 mg/L (Oryzias latipes) OECD 203 Read across with Cas N° : 16766-89-3	EC50 (17h) = 112.1 mg/L, EC10 (17h) = 71.7 mg/L (Pseudomonas putida) DIN 38412, part 8

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Styrene 100-42-5		NOEC (21d) = 1.01 mg/L (Daphnia magna) LOEC (21d) = 2.06 mg/L (Daphnia magna) EC50 (21d) = 1.88 mg/L (Daphnia magna) OECD 203		
Titanium dioxide 13463-67-7	NOEC (72h) = 5600 mg/L (Skeletonema costatum) ISO 10253	NOEC (48h) >= 3 mg/L (Daphnia magna) OECD 202, OECD 209		
Barium sulfate 7727-43-7		NOEC (21d) = 2900 µg/L (Daphnia magna) ECHA methodology (i.e., EC16/2)		
(2-methoxymethylethoxy)propanol 34590-94-8		NOEC (22d) >= 0.5 mg/L (Daphnia magna) Similar to OECD 211		
Paraffin waxes and Hydrocarbon waxes 8002-74-2		NOEL (21d) >= 1000 mg/L (Daphnia magna) QSAR	NOEL (28d) >= 1000 mg/L (Oncorhynchus mykiss) QSAR	
cobalt octoate 136-52-7	EC50 (7d) = 90.1 µg./L (Lemna minor) NOEC (7d) = 3.0 µg/L (Lemna minor) LOEC (7d) = 8.8 µg/L (Lemna minor) OECD 221	NOECR (21d) = 60.8 µg./L (Daphnia magna) LC50 (21d) = 121.3 mg/L (Daphnia magna) LOECR (21d) = 93.3 µg Codiss./L (Daphnia magna) OECD 211		
Potassium 2-ethylhexanoate 3164-85-0		NOEC (21d) = 25 mg/L (Daphnia magna) OECD 211		

Effects on terrestrial organisms - Component Information

Chronic toxicity				
Styrene (100-42-5)				
Chronic toxicity	Method	Species	Values	Remarks

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Toxicity to invertebrates	OECD 207	Eisenia foetida	LC50 (14d) = 120 mg/kg soil dw LOEC (burrowing time and mean percent weight change) = 65 mg/kg soil dw LOEC (survival) = 180 mg/kg soil dw NOEC (mean percent weight change) = 34 mg/kg soil dw
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(2-methoxymethylethoxy)propanol (34590-94-8)

Chronic toxicity plants	Method	Species	Values	Remarks
	OECD 227	Grossypium hirsutum	NOEC (21d) = 250 g/L	

12.2. Persistence and degradability

Chemical Name	Biodegradation	Evaluation
Styrene 100-42-5	87% (20d) similar to OECD 301D	Readily biodegradable
(2-methoxymethylethoxy)propanol 34590-94-8	96 % (28d) DOC removal, 75 % (10d) OECD 301F	Readily biodegradable
Paraffin waxes and Hydrocarbon waxes 8002-74-2	31 % (28d) OECD 301F Read across with : MRD-94-981	Inherently biodegradable.
cobalt octoate 136-52-7	60% (> 10d), OECD 301 B	Readily biodegradable
Potassium 2-ethylhexanoate 3164-85-0	> 70 % (99%) (28d), Read across with benzoic acid, sodium salt OECD 301E	Readily biodegradable

12.3. Bioaccumulative potential

Bioconcentration factor (BCF)		
Styrene (100-42-5)		
Method	Species	Bioconcentration factor (BCF)
Calculation method		74

Titanium dioxide (13463-67-7)		
Method	Species	Bioconcentration factor (BCF)
no data available	Oncorhynchus mykiss	20 L/kg (14d)

Barium sulfate (7727-43-7)		
Method	Species	Bioconcentration factor (BCF)
no data available	Lepomis macrochirus	74.4 L/kg

Chemical Name	log Pow
Styrene 100-42-5	3
Talc 14807-96-6	-9.4
(2-methoxymethylethoxy)propanol 34590-94-8	0.0043
Potassium 2-ethylhexanoate 3164-85-0	2.96

12.4. Mobility in soil

Chemical Name	LogKoc	Koc
Styrene 100-42-5	2.55	352
Talc 14807-96-6	1.5027	31.82

12.5. Results of PBT and vPvB assessment

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Chemical Name	PBT	vPvB
Styrene 100-42-5	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Titanium dioxide 13463-67-7	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Talc 14807-96-6	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Silica, amorphous, fumed, crystalline-free 112945-52-5	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
(2-methoxymethylethoxy)propanol 34590-94-8	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Paraffin waxes and Hydrocarbon waxes 8002-74-2	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).	This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Autres effets néfastes

None known.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from Residues/Unused Products Dispose of in accordance with the European Directives on waste and hazardous waste. Do not flush into surface water or sanitary sewer system

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Other information According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information**14.1. UN number**

ADR/RID UN1866
IMDG/IMO UN1866
ICAO/IATA UN1866
ADN UN1866

14.2. UN proper shipping name

ADR/RID
Resin solution
UN1866, RESIN SOLUTION, 3, PG III, (D/E)

IMDG/IMO
Resin solution
UN1866, RESIN SOLUTION, 3, PG III, (31°C c.c.)

ICAO/IATA
UN1866, RESIN SOLUTION, 3, PG III

ADN
Resin solution
UN1866, RESIN SOLUTION, 3, PG III

14.3. Transport hazard class(es)

ADR/RID	
Hazard class	3
IMDG/IMO	
Hazard class	3
ICAO/IATA	
Hazard class	3
ADN	
Hazard class	3

14.4. Packing group

ADR/RID	III
IMDG/IMO	III
ICAO/IATA	III
ADN	III

14.5. Environmental hazards

ADR/RID	No
IMDG/IMO	No
Marine pollutant	No
ICAO/IATA	No
ADN	No

14.6. Special precautions for user

ADR/RID	
Classification Code	F1
Tunnel restriction code	(D/E)
Limited quantity	5 L
IMDG/IMO	
EmS	F-E, S-E
Limited quantity	5 L
ICAO/IATA	
ERG Code	3L
Limited quantity	10 L
ADN	
Classification Code	F1
Limited quantity	5 L
ventilation	VE01

Special precautions for users

Special precautions No information available

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

Transport in bulk according to 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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Regulation (EC) No. 1907/2006 (REACH)
 Regulation (EC) No. 1272/2008 (CLP)
 Regulation (EU) No. 830/2015
 Directive 88/642/EEC
 Directive 98/24/EC
 Directive 1999/92/EC
 Directive 2012/18/EU

The mixture is subject to restrictions on use, see Annex XVII of the Regulation 1907/2006/EC (REACH): Column 1, n° 3; Column 1, n° 40.

European Union

Chemical Name	96/82/EC (SEVESO) - §9	96/82/EC (SEVESO) - §6, §7
Styrene - 100-42-5	50000	5000 tonnes 50000 tonnes

National regulatory information**The United Kingdom**

Avoid exceeding of the given occupational exposure limits (see section 8).

Ireland

Avoid exceeding of the given occupational exposure limits (see section 8).

15.2. Chemical safety assessment

Chemical Safety Assessment

Yes

Exposure scenario

Relevant information for risk control are communicated in the form of exposure scenario attached to the safety data sheet.

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3**

H226 - Flammable liquid and vapour
 H304 - May be fatal if swallowed and enters airways
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 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
 H360Fd - May damage fertility. Suspected of damaging the unborn child
 H361 - Suspected of damaging fertility or the unborn child
 H361d - Suspected of damaging the unborn child
 H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
 H400 - Very toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Training Advice

Handle in accordance with good industrial hygiene and safety practice. To avoid risks to man and the environment, comply with the instructions for use.

Sources of key data used to compile the datasheet

ECHA

Former date

08-Sep-2017

Revision date

19-Aug-2019

Revision Note

SDS sections updated : 1 , 2 , 3 , 8 , 11 , 12

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet