

SDS VERSIS S1 pages 2-20

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according to Regulation (EC) No. 1907/2006



VERSIS S1

Version 1.0 MSDS Number: H51817 Revision Date: 13.05.2015

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

1.1 Product identifier

Trade name : VERSIS S1

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

Use of the Sub-

stance/Mixture

: Solvent-borne coatings

Recommended restrictions

: For use in industrial installations or professional treatment only.

on use on

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person responsible for the SDS

: msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin irritation, Category 2 H315: Causes skin irritation.

Specific target organ toxicity - single ex-

posure, Category 3

H336: May cause drowsiness or dizziness.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

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fects.

Classification (67/548/EEC, 1999/45/EC)

Flammable R10: Flammable.

Harmful R48/20: Also harmful: danger of serious damage to

health by prolonged exposure through inhalation.

Irritant R36/38: Irritating to eyes and skin.

R67: Vapours may cause drowsiness and dizzi-

ness.

R52/53: Harmful to aquatic organisms, may cause Dangerous for the environment

long-term adverse effects in the aquatic environ-

ment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal word Warning

Hazard statements H226 Flammable liquid and vapour.

> H373 May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Causes serious eye irritation. H319

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness. H412

Harmful to aquatic life with long lasting ef-

fects.

Prevention: Precautionary statements

> P210 Keep away from heat/sparks/open

flames/hot surfaces. - No smoking.

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

P260 Do not breathe spray. P260 Do not breathe vapours.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-

ately all contaminated clothing. Rinse skin

with water/shower.

P370 + P378 In case of fire: Use dry sand, dry chemical

or alcohol-resistant foam to extinguish.

Storage:

P403 Store in a well-ventilated place.

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Disposal:

P501 Dispose of contents/ container to an ap-

proved waste disposal plant.

Hazardous components which must be listed on the label: xylene (mixture of isomers)

n-butyl acetate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Paint

Hazardous components

n-butyl acetate	CAS-No. EC-No. Registration number 123-86-4 204-658-1	Classification (67/548/EEC) R10 R66	Classification (REGULATION (EC) No 1272/2008) Flam. Liq.3; H226 STOT SE3; H336	Concentration (%) >= 15 - < 20
	01- 2119485493-29	R67		
xylene (mixture of isomers)	1330-20-7 215-535-7 01- 2119488216-32	R10 Xn; R20/21 Xi; R38	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304	>= 5 - < 10
Solvent naphtha (petro-leum), light arom.	64742-95-6 265-199-0 01- 2119455851-35	Xn; R65 Xi; R37 N; R51/53 R10 R66 R67	Flam. Liq.3; H226 Asp. Tox.1; H304 STOT SE3; H335, H336 Aquatic Chronic2; H411	>= 2.5 - < 10
ethylbenzene	100-41-4 202-849-4	F; R11 Xn; R20	Flam. Liq.2; H225 Acute Tox.4; H332 STOT RE2; H373 Asp. Tox.1; H304	>= 1 - < 10
Substances with a workp				
2-methoxy-1-	108-65-6	R10	Flam. Liq.3; H226	>= 1 - < 10

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methylethyl acetate 203-603-9 01-2119475791-29

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Do not use a solid water stream as it may scatter and spread

fire.

ucts

Hazardous combustion prod- : No hazardous combustion products are known

5.3 Advice for firefighters

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored sepa-

rately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

: Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of

electrostatic charge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Wash hands before breaks and at the end of work-

day.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: No smoking. Keep container tightly closed in a dry and well-

ventilated place.

Storage period : 12 Months

: No decomposition if stored and applied as directed. Other data

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular recommen-

dations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis	
		of exposure)			
Limestone	1317-65-3	TWA (inhalable	10 mg/m3	GB EH40	
		dust)			
Further information			espirable dust and inhalable		
			Il be collected when sampling		
			escribed in MDHS14/3 Gene		
			of respirable and inhalable of		
			hazardous to health includes		
			ion in air equal to or greater t		
	8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust.				
	This means that any dust will be subject to COSHH if people are exposed				
	above these levels. Some dusts have been assigned specific WELs and ex-				
	posure to these must comply with the appropriate limit., Most industrial dusts				
	contain particles of a wide range of sizes. The behaviour, deposition and fate				
	of any particul	lar particle after entr	y into the human respiratory	system and the	

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ersion 1.0	IVIOL	33 Number, 1131017	1167	151011 Date: 15.05.2015	
	body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Limestone	1317-65-3	TWA (Respirable dust)	4 mg/m3	GB EH40	
Further information	fractions of air in accordance sampling and COSHH definition when pre 8-hour TWA of This means the above these less posure to the contain particul of any particul body response HSE distinguishle' and 'respin material that eavailable for dot to the fraction definitions and contain composhould be composited.	borne dust which with the methods do gravimetric analysis ition of a substance is sent at a concentrate inhalable dust or 4 at any dust will be sevels. Some dusts have must comply with es of a wide range of a reparticle after entry e that it elicits, dependents the nose and reposition in the respectation of the penetrates to the dexplanatory materionents that have the	Il be collected whe escribed in MDHS1 of respirable and i hazardous to health ion in air equal to comp.m-3 8-hour TW ubject to COSHH if ave been assigned the appropriate limit of sizes. The behave you into the human read on the nature arms for limit-setting post approximates to mouth during breath irratory tract. Respine gas exchange read are given in MDH ir own assigned Wino specific short-tel	h includes dust of any or greater than 10 mg.m-3 VA of respirable dust. If people are exposed a specific WELs and exit., Most industrial dusts iour, deposition and fate espiratory system and the nd size of the particle. Purposes termed 'inhalathe fraction of airborne thing and is therefore rable dust approximates egion of the lung. Fuller HS14/3., Where dusts EL, all the relevant limits rm exposure limit is listed,	
titanium dioxide	13463-67-7	TWA (inhalable dust)	10 mg/m3	GB EH40	
Further information	fractions of air in accordance sampling and COSHH definition kind when pre 8-hour TWA of This means the above these leposure to these contain particules of any particules body response HSE distinguishle' and 'respin material that expenses of the secondary particules of the secondary particules of the secondary particules of the secondary particules of the secondary particulation of the secondary part	ses of these limits, response dust which with the methods do gravimetric analysis ition of a substance is sent at a concentrate inhalable dust or 4 at any dust will be sevels. Some dusts has must comply with es of a wide range of a reparticle after entry that it elicits, dependent of the content of the co	Il be collected whe escribed in MDHS1 of respirable and i hazardous to healt ion in air equal to comg.m-3 8-hour TW ubject to COSHH if ave been assigned the appropriate limit of sizes. The behave y into the human read on the nature arms for limit-setting part approximates to mouth during breat	inhalable dust are those in sampling is undertaken 14/3 General methods for inhalable dust, The includes dust of any or greater than 10 mg.m-3 VA of respirable dust. If people are exposed is specific WELs and expit., Most industrial dusts iour, deposition and fate espiratory system and the individual size of the particle. Purposes termed 'inhalathe fraction of airborne thing and is therefore rable dust approximates	

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	to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
titanium dioxide	13463-67-7	TWA (Respirable dust)	4 mg/m3	GB EH40	
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40	
n-butyl acetate	123-86-4	STEL	200 ppm 966 mg/m3	GB EH40	
Talc	Talc (Mg3H2(SiO 3)4)	TWA (Respirable dust)	1 mg/m3	GB EH40	
Further information	fractions of air in accordance sampling and defined as the ing chlorite ar bole asbestos hazardous to in air equal to mg.m-3 8-hou ject to COSHI been assigned appropriate lir sizes. The belinto the huma pend on the n	rborne dust which will with the methods de gravimetric analysis emineral talc together described carbonate materials and crystalline silicate health includes dust or greater than 10 nur TWA of respirable of specific WELs and mit., Most industrial of haviour, deposition an respiratory system ature and size of the	espirable dust and inhalable ill be collected when samplir escribed in MDHS14/3 General of respirable and inhalable er with other hydrous phyllosals which occur with it, but exal, The COSHH definition of of any kind when present at any man and the body response that any distribution of exposure to these must condusts contain particles of a wand fate of any particular particular particular. HSE distinguishes med 'inhalable' and 'respirab	ag is undertaken eral methods for dust, Talc is dilicates includ-cluding amphia substance a concentration able dust or 4 dust will be subseed to a concentration able for a concentration able dust or 4 dust will be subseed to a concentration able dust or 4 dust will be subseed to a concentration able dust or 4 dust will be subseed to a concentration able dust or 4 dust shave an end of the concentration and concentration and concentration are to a concentration and concentratio	

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	mouth during tory tract. Res gas exchange are given in M own assigned	breathing and is the spirable dust approxe region of the lung. IDHS14/3., Where well well, all the relevanterm exposure limit	of airborne material that enterefore available for deposition imates to the fraction that per Fuller definitions and explanates contain components that limits should be complied is listed, a figure three times	n in the respira- netrates to the atory material at have their with., Where no	
xylene (mixture of isomers)	1330-20-7	TWA	50 ppm 220 mg/m3	GB EH40	
Further information			he assigned substances are to osorption will lead to systemic		
xylene (mixture of isomers)	1330-20-7	STEL	100 ppm 441 mg/m3	GB EH40	
Further information			he assigned substances are to osorption will lead to systemic		
xylene (mixture of isomers)	1330-20-7	TWA	50 ppm 221 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
xylene (mixture of isomers)	1330-20-7	STEL	100 ppm 442 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
ethylbenzene	100-41-4	STEL	200 ppm 884 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
ethylbenzene	100-41-4	TWA	100 ppm 441 mg/m3	GB EH40	
Further information			he assigned substances are to bsorption will lead to systemic		
ethylbenzene	100-41-4	STEL	125 ppm 552 mg/m3	GB EH40	
Further information	there are con-	cerns that dermal al	he assigned substances are to osorption will lead to systemic	toxicity.	
2-methoxy-1- methylethyl ace- tate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
2-methoxy-1- methylethyl ace- tate	108-65-6	STEL	100 ppm 550 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of signific	ant uptake through the skin,	Indicative	
2-methoxy-1- methylethyl ace- tate	108-65-6	TWA	50 ppm 274 mg/m3	GB EH40	
Further information		Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
2-methoxy-1- methylethyl ace- tate	108-65-6	STEL	100 ppm 548 mg/m3	GB EH40	
-		0 / 10			

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Further information | Can be absorbed through skin. The assigned substances are those for which

there are concerns that dermal absorption will lead to systemic toxicity.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

n-butyl acetate : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 480 mg/m3

xylene : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3

Low boiling point naphtha -

unspecified

ethylbenzene

: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 608 mg/m3 : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3 : End Use: Workers

2-methoxy-1-methylethyl ace-

tate

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 275 mg/m3

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Remarks : Solvent-resistant gloves The selected protective gloves have

to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves

clean them with soap and water.

Skin and body protection : impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an ap-

proved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid, viscous

Colour : white

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Odour : characteristic

Melting point/range : Not applicable

Boiling point/boiling range : not determined

Flash point : 27 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit : not determined

Lower explosion limit : not determined

Vapour pressure : not determined

Density : 1.43 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 35,000 mPa.s (20 °C)

Method: ISO 2555

Viscosity, kinematic : > 20.5 mm2/s (40 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

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10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg

Method: Calculation method

Components:

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate : 1,100 mg/kg

Method: Converted acute toxicity point estimate

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

Method: OECD Test Guideline 401

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Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 17.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 15,400 mg/kg

Method: OECD Test Guideline 402

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 8,532 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 35.7 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 5,000 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Germ cell mutagenicity- As-

sessment

: Based on available data, the classification criteria are not met.

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Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

: Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Product:

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

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

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Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Solvent naphtha (petroleum), light arom.:

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2.9 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

ethylbenzene:

Toxicity to fish : LC50 (Fish): 12 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 1.8 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 408 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l

Exposure time: 72 h

according to Regulation (EC) No. 1907/2006



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Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263 IMDG : UN 1263 IATA : UN 1263

according to Regulation (EC) No. 1907/2006



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14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA : Paint

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA
 : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III Labels : 3

EmS Code : F-E, <u>S-E</u>

IATA

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c FLAMMABLE LIQUIDS 5,000 t Quantity 1 Quantity 2

according to Regulation (EC) No. 1907/2006



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34 Petroleum products: (a) 2,500 t 25,000 t

gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)

Volatile organic compounds : 497 g/l

Directive 2004/42/EC : (540 g/l)

Other regulations : The product is classified and labelled in accordance with EC

directives or respective national laws.

15.2 Chemical Safety Assessment

Not applicable

SECTION 16: Other information

Full text of R-Phrases

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.

R20/21 Harmful by inhalation and in contact with skin.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Full text of H-Statements

H411

Further information

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled

Toxic to aquatic life with long lasting effects.

according to Regulation (EC) No. 1907/2006



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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

according to Regulation (EC) No. 1907/2006



VERSIS S4

Version 1.0 MSDS Number: H51818 Revision Date: 13.05.2015

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

1.1 Product identifier

Trade name : VERSIS S4

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

Use of the Sub-

stance/Mixture

: Solvent-borne coatings

Recommended restrictions

on use

: For use in industrial installations or professional treatment

only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person responsible for the SDS

: msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin irritation, Category 2 H315: Causes skin irritation.

Specific target organ toxicity - single ex-

posure, Category 3

H336: May cause drowsiness or dizziness.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

according to Regulation (EC) No. 1907/2006



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fects.

Classification (67/548/EEC, 1999/45/EC)

Flammable R10: Flammable.

Harmful R48/20: Also harmful: danger of serious damage to

health by prolonged exposure through inhalation.

Irritant R36/38: Irritating to eyes and skin.

R67: Vapours may cause drowsiness and dizzi-

ness.

Dangerous for the environment R52/53: Harmful to aquatic organisms, may cause

long-term adverse effects in the aquatic environ-

ment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :







Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

H373 May cause damage to organs through pro-

longed or repeated exposure if inhaled.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting ef-

fects.

Precautionary statements : **Prevention:**

P210 Keep away from heat/sparks/open

flames/hot surfaces. - No smoking.

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

P260 Do not breathe spray.
P260 Do not breathe vapours.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-

ately all contaminated clothing. Rinse skin

with water/shower.

P370 + P378 In case of fire: Use dry sand, dry chemical

or alcohol-resistant foam to extinguish.

Storage:

P403 Store in a well-ventilated place.

according to Regulation (EC) No. 1907/2006



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Disposal:

P501 Dispose of contents/ container to an ap-

proved waste disposal plant.

Hazardous components which must be listed on the label: xylene (mixture of isomers)

n-butyl acetate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Paint

Hazardous components

n-butyl acetate	CAS-No. EC-No. Registration number 123-86-4 204-658-1	Classification (67/548/EEC) R10 R66	Classification (REGULATION (EC) No 1272/2008) Flam. Liq.3; H226 STOT SE3; H336	Concentration (%) >= 15 - < 20
	01- 2119485493-29	R67		
xylene (mixture of isomers)	1330-20-7 215-535-7 01- 2119488216-32	R10 Xn; R20/21 Xi; R38	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304	>= 5 - < 10
Solvent naphtha (petro-leum), light arom.	64742-95-6 265-199-0 01- 2119455851-35	Xn; R65 Xi; R37 N; R51/53 R10 R66 R67	Flam. Liq.3; H226 Asp. Tox.1; H304 STOT SE3; H335, H336 Aquatic Chronic2; H411	>= 2.5 - < 10
ethylbenzene	100-41-4 202-849-4	F; R11 Xn; R20	Flam. Liq.2; H225 Acute Tox.4; H332 STOT RE2; H373 Asp. Tox.1; H304	>= 1 - < 10
Substances with a workp				
2-methoxy-1-	108-65-6	R10	Flam. Liq.3; H226	>= 1 - < 10

according to Regulation (EC) No. 1907/2006



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methylethyl acetate 203-603-9 01-2119475791-29

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

according to Regulation (EC) No. 1907/2006



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MSDS Number: H51818 Version 1.0 Revision Date: 13.05.2015

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Do not use a solid water stream as it may scatter and spread

fire.

ucts

Hazardous combustion prod- : No hazardous combustion products are known

5.3 Advice for firefighters

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored sepa-

rately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

according to Regulation (EC) No. 1907/2006



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

: Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of

electrostatic charge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Wash hands before breaks and at the end of work-

day.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: No smoking. Keep container tightly closed in a dry and well-

ventilated place.

Storage period : 12 Months

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular recommen-

dations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis	
		of exposure)			
Limestone	1317-65-3	TWA (inhalable	10 mg/m3	GB EH40	
		dust)			
Further information	For the purpor	ses of these limits, re	espirable dust and inhalable	dust are those	
			Il be collected when sampling		
			escribed in MDHS14/3 Gene		
			of respirable and inhalable of		
			hazardous to health includes	,	
			ion in air equal to or greater t		
	8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust.				
	This means that any dust will be subject to COSHH if people are exposed				
	above these levels. Some dusts have been assigned specific WELs and ex-				
	posure to these must comply with the appropriate limit., Most industrial dusts				
			f sizes. The behaviour, depo		
	of any particul	lar particle after entr	y into the human respiratory :	system and the	

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	body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Limestone	1317-65-3	TWA (Respirable dust)	4 mg/m3	GB EH40	
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed,				
n-butyl acetate	123-86-4	TWA	exposure should be used 150 ppm 724 mg/m3	GB EH40	
n-butyl acetate	123-86-4	STEL	200 ppm 966 mg/m3	GB EH40	
Talc	Talc (Mg3H2(SiO 3)4)	TWA (Respirable dust)	1 mg/m3	GB EH40	
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, Talc is defined as the mineral talc together with other hydrous phyllosilicates including chlorite and carbonate materials which occur with it, but excluding amphibole asbestos and crystalline silica., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the				

according to Regulation (EC) No. 1907/2006



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xylene (mixture of	appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
isomers)	1330-20-7	TWA	50 ppm 220 mg/m3	GB EH40	
Further information	there are con-	cerns that dermal ab	ne assigned substances are sorption will lead to systemic	c toxicity.	
xylene (mixture of isomers)	1330-20-7	STEL	100 ppm 441 mg/m3	GB EH40	
Further information	there are con-	cerns that dermal ab	ne assigned substances are sorption will lead to systemic	c toxicity.	
xylene (mixture of isomers)	1330-20-7	TWA	50 ppm 221 mg/m3	2000/39/EC	
Further information	Identifies the		ant uptake through the skin,	Indicative	
xylene (mixture of isomers)	1330-20-7	STEL	100 ppm 442 mg/m3	2000/39/EC	
Further information			ant uptake through the skin,		
titanium dioxide	13463-67-7	TWA (inhalable dust)	10 mg/m3	GB EH40	
titanium dioxide	fractions of ai in accordance sampling and COSHH defin kind when present above these I posure to the contain particular of any particular body responsible and respinaterial that a available for othe fraction definitions and contain complishould be corrected.	rborne dust which we with the methods do gravimetric analysis ition of a substance esent at a concentration inhalable dust or 4 hat any dust will be sevels. Some dusts has emust comply with les of a wide range of lar particle after entre that it elicits, dependents the nose and deposition in the respectation of the penetrates to the contents that have the opplied with., Where the policy with the penetrates to the contents that have the opplied with., Where the contents that have the opplied with.	espirable dust and inhalable ill be collected when sampline escribed in MDHS14/3 General programments of respirable and inhalable in the properties of respirable and inhalable in the properties of the appropriate limit. Most if the appropriate limit. Most if sizes. The behaviour, depoy into the human respiratory and on the nature and size of the sizes of the fraction on the nature and size of the sizes of the sizes of the fraction of the size of the sizes of the fraction of the sizes of the siz	ig is undertaken eral methods for dust, The solution dust of any than 10 mg.m-3 pirable dust. The exposed wells and exposed wells and exposition and fate system and the the particle. The termed inhalation of airborne is therefore the approximates are lung. Fuller where dusts experience of the exposed of t	

according to Regulation (EC) No. 1907/2006



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		dust)		
Further information	For the purpo	ses of these limits, r	espirable dust and inhalable	dust are those
			ill be collected when samplin	
			escribed in MDHS14/3 Gene	
	sampling and	dust, The		
	COSHH defin	ition of a substance	hazardous to health includes	dust of any
	kind when pre	esent at a concentrat	ion in air equal to or greater	than 10 mg.m-3
	8-hour TWA o	of inhalable dust or 4	mg.m-3 8-hour TWA of resp	irable dust.
			subject to COSHH if people a	
			ave been assigned specific \	
			the appropriate limit., Most in	
			of sizes. The behaviour, depo	
			y into the human respiratory	
			nd on the nature and size of	
			ns for limit-setting purposes	
			st approximates to the fraction	
			mouth during breathing and i piratory tract. Respirable dust	
			ne gas exchange region of th	
			al are given in MDHS14/3., V	
			ir own assigned WEL, all the	
			no specific short-term exposu	
			exposure should be used	aro minicio notoa,
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC
0111/1001120110	100 11 1		442 mg/m3	2000/00/20
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
ethylbenzene	100-41-4	STEL	200 ppm	2000/39/EC
,			884 mg/m3	
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
ethylbenzene	100-41-4	TWA	100 ppm	GB EH40
			441 mg/m3	
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which
	there are con-	cerns that dermal ab	sorption will lead to systemic	toxicity.
ethylbenzene	100-41-4	STEL	125 ppm	GB EH40
			552 mg/m3	
Further information			ne assigned substances are t	
		cerns that dermal ab	sorption will lead to systemic	
2-methoxy-1-	108-65-6	TWA	50 ppm	2000/39/EC
methylethyl ace-			275 mg/m3	
tate				
Further information			ant uptake through the skin, I	
2-methoxy-1-	108-65-6	STEL	100 ppm	2000/39/EC
methylethyl ace-			550 mg/m3	
tate				<u> </u>
Further information			ant uptake through the skin, I	
2-methoxy-1-	108-65-6	TWA	50 ppm	GB EH40
methylethyl ace-			274 mg/m3	
tate	0			
Further information			ne assigned substances are t	
0			sorption will lead to systemic	•
2-methoxy-1-	108-65-6	STEL	100 ppm	GB EH40
methylethyl ace-			548 mg/m3	

according to Regulation (EC) No. 1907/2006



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tate	
Further information	Can be absorbed through skin. The assigned substances are those for which
	there are concerns that dermal absorption will lead to systemic toxicity.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

n-butyl acetate : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 480 mg/m3

: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3 : End Use: Workers

Low boiling point naphtha -

unspecified

ethylbenzene

xylene

Elia Ose. Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 608 mg/m3 : End Use: Workers

. Life OSE. Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3 End Use: Workers

2-methoxy-1-methylethyl ace-

tate

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 275 mg/m3

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Remarks : Solvent-resistant gloves The selected protective gloves have

to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves

clean them with soap and water.

Skin and body protection : impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an ap-

proved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid, viscous

according to Regulation (EC) No. 1907/2006



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Colour : grey

Odour : characteristic

Melting point/range : Not applicable

Boiling point/boiling range : not determined

Flash point : 27 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit : not determined

Lower explosion limit : not determined

Vapour pressure : not determined

Density : 1.42 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 35,000 mPa.s (20 °C)

Method: ISO 2555

Viscosity, kinematic : > 20.5 mm2/s (40 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

according to Regulation (EC) No. 1907/2006



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Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg

Method: Calculation method

Components:

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate : 1,100 mg/kg

Method: Converted acute toxicity point estimate

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

according to Regulation (EC) No. 1907/2006



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Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 17.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 15,400 mg/kg

Method: OECD Test Guideline 402

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 8,532 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 35.7 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 5,000 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Germ cell mutagenicity- As-

: Based on available data, the classification criteria are not met.

sessment

according to Regulation (EC) No. 1907/2006



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Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

: Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Product:

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

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

according to Regulation (EC) No. 1907/2006



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Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Solvent naphtha (petroleum), light arom.:

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2.9 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

ethylbenzene:

Toxicity to fish : LC50 (Fish): 12 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 1.8 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 408 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l

Exposure time: 72 h

according to Regulation (EC) No. 1907/2006



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Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263 IMDG : UN 1263 IATA : UN 1263

according to Regulation (EC) No. 1907/2006



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14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA : Paint

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA
 : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III Labels : 3

EmS Code : F-E, <u>S-E</u>

IATA

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c FLAMMABLE LIQUIDS 5,000 t Quantity 1 Quantity 2

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34 Petroleum products: (a) 2,500 t 25,000 t

gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)

Volatile organic compounds : 497 g/l

Directive 2004/42/EC : (540 g/l)

Other regulations : The product is classified and labelled in accordance with EC

directives or respective national laws.

15.2 Chemical Safety Assessment

Not applicable

SECTION 16: Other information

Full text of R-Phrases

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R37 Irritating to respiratory system.
R38 Irritating to skin.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Full text of H-Statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure
	if inhaled.

Further information

H411

Toxic to aquatic life with long lasting effects.

according to Regulation (EC) No. 1907/2006



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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

according to Regulation (EC) No. 1907/2006



VERSIS S7

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

1.1 Product identifier

Trade name : VERSIS S7

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

Use of the Sub-

stance/Mixture

: Solvent-borne coatings

Recommended restrictions

on use

: For use in industrial installations or professional treatment

only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person responsible for the SDS

: msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Specific target organ toxicity - repeated

exposure, Category 2

H373: May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin irritation, Category 2 H315: Causes skin irritation.

Specific target organ toxicity - single ex-

posure, Category 3

H336: May cause drowsiness or dizziness.

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting ef-

according to Regulation (EC) No. 1907/2006



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fects.

Classification (67/548/EEC, 1999/45/EC)

Flammable R10: Flammable.

Harmful R48/20: Also harmful: danger of serious damage to

health by prolonged exposure through inhalation.

Irritant R36/38: Irritating to eyes and skin.

R67: Vapours may cause drowsiness and dizzi-

ness.

R52/53: Harmful to aquatic organisms, may cause Dangerous for the environment

long-term adverse effects in the aquatic environ-

ment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal word Warning

Hazard statements H226 Flammable liquid and vapour.

> H373 May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Causes serious eye irritation. H319

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness. H412

Harmful to aquatic life with long lasting ef-

fects.

Prevention: Precautionary statements

> P210 Keep away from heat/sparks/open

flames/hot surfaces. - No smoking.

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

P260 Do not breathe spray. P260 Do not breathe vapours.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immedi-

ately all contaminated clothing. Rinse skin

with water/shower.

P370 + P378 In case of fire: Use dry sand, dry chemical

or alcohol-resistant foam to extinguish.

Storage:

P403 Store in a well-ventilated place.

according to Regulation (EC) No. 1907/2006



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Disposal:

P501 Dispose of contents/ container to an ap-

proved waste disposal plant.

Hazardous components which must be listed on the label: xylene (mixture of isomers)

n-butyl acetate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Paint

Hazardous components

n-butyl acetate	CAS-No. EC-No. Registration number 123-86-4 204-658-1	Classification (67/548/EEC) R10 R66	Classification (REGULATION (EC) No 1272/2008) Flam. Liq.3; H226 STOT SE3; H336	Concentration (%) >= 15 - < 20
	01- 2119485493-29	R67		
xylene (mixture of isomers)	1330-20-7 215-535-7 01- 2119488216-32	R10 Xn; R20/21 Xi; R38	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304	>= 5 - < 10
Solvent naphtha (petro-leum), light arom.	64742-95-6 265-199-0 01- 2119455851-35	Xn; R65 Xi; R37 N; R51/53 R10 R66 R67	Flam. Liq.3; H226 Asp. Tox.1; H304 STOT SE3; H335, H336 Aquatic Chronic2; H411	>= 2.5 - < 10
ethylbenzene	100-41-4 202-849-4	F; R11 Xn; R20	Flam. Liq.2; H225 Acute Tox.4; H332 STOT RE2; H373 Asp. Tox.1; H304	>= 1 - < 10
Substances with a workplace exposure limit :				
2-methoxy-1-	108-65-6	R10	Flam. Liq.3; H226	>= 1 - < 10

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methylethyl acetate 203-603-9 01- 2119475791-29

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

according to Regulation (EC) No. 1907/2006



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: Do not use a solid water stream as it may scatter and spread

fire.

ucts

Hazardous combustion prod- : No hazardous combustion products are known

5.3 Advice for firefighters

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored sepa-

rately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

according to Regulation (EC) No. 1907/2006



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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

: Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of

electrostatic charge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Wash hands before breaks and at the end of work-

day.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: No smoking. Keep container tightly closed in a dry and well-

ventilated place.

Storage period : 12 Months

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular recommen-

dations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
Limestone	1317-65-3	TWA (inhalable	10 mg/m3	GB EH40
		dust)		
Further information	For the purposes of these limits, respirable dust and inhalable dust are those			
			Il be collected when sampling	
			escribed in MDHS14/3 Gene	
	sampling and gravimetric analysis of respirable and inhalable dust, The			
	COSHH definition of a substance hazardous to health includes dust of any			
	kind when present at a concentration in air equal to or greater than 10 mg.m-3			
	8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust.			
	This means that any dust will be subject to COSHH if people are exposed			
	above these levels. Some dusts have been assigned specific WELs and ex-			
	posure to these must comply with the appropriate limit., Most industrial dusts			
	contain particles of a wide range of sizes. The behaviour, deposition and fate			
	of any particular particle after entry into the human respiratory system and the			

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	body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
Limestone	1317-65-3	TWA (Respirable dust)	4 mg/m3	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed,			
n-butyl acetate	123-86-4	TWA	exposure should be used 150 ppm 724 mg/m3	GB EH40
n-butyl acetate	123-86-4	STEL	200 ppm 966 mg/m3	GB EH40
Talc	Talc (Mg3H2(SiO 3)4)	TWA (Respirable dust)	1 mg/m3	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, Talc is defined as the mineral talc together with other hydrous phyllosilicates including chlorite and carbonate materials which occur with it, but excluding amphibole asbestos and crystalline silica., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the			

according to Regulation (EC) No. 1907/2006



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	appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			
xylene (mixture of	1330-20-7	TWA	50 ppm	GB EH40
isomers)			220 mg/m3	
Further information			ne assigned substances are to sorption will lead to systemic	
xylene (mixture of	1330-20-7	STEL	100 ppm	GB EH40
isomers)		0	441 mg/m3	02 20
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which
			osorption will lead to systemic	
xylene (mixture of	1330-20-7	TWA	50 ppm	2000/39/EC
isomers)			221 mg/m3	
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
xylene (mixture of	1330-20-7	STEL	100 ppm	2000/39/EC
isomers)			442 mg/m3	
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC
			442 mg/m3	
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
ethylbenzene	100-41-4	STEL	200 ppm	2000/39/EC
0,		0.11	884 mg/m3	
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
ethylbenzene	100-41-4	TWA	100 ppm	GB EH40
, , , , , , , , , , , , , , , , , , , ,			441 mg/m3	
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which
			sorption will lead to systemic	
ethylbenzene	100-41-4	STEL	125 ppm	GB EH40
			552 mg/m3	
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which
	there are con-	cerns that dermal ab	sorption will lead to systemic	toxicity.
2-methoxy-1-	108-65-6	TWA	50 ppm	2000/39/EC
methylethyl ace-			275 mg/m3	
tate				
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
2-methoxy-1-	108-65-6	STEL	100 ppm	2000/39/EC
methylethyl ace-			550 mg/m3	
tate			Ĭ	
Further information	Identifies the	possibility of signific	ant uptake through the skin, I	ndicative
2-methoxy-1-	108-65-6	TWA	50 ppm	GB EH40
methylethyl ace-			274 mg/m3	
tate				
	<u> </u>	ı		1

according to Regulation (EC) No. 1907/2006



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Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
2-methoxy-1- methylethyl ace- tate	108-65-6	STEL	100 ppm 548 mg/m3	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

n-butyl acetate : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 480 mg/m3 : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3 : End Use: Workers

Low boiling point naphtha -

unspecified

xylene

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 608 mg/m3

ethylbenzene : End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 77 mg/m3

2-methoxy-1-methylethyl ace-

: End Use: Workers

tate

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 275 mg/m3

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Remarks : Solvent-resistant gloves The selected protective gloves have

to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves

clean them with soap and water.

Skin and body protection : impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an ap-

proved filter.

according to Regulation (EC) No. 1907/2006



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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid, viscous

Colour : black

Odour : characteristic

Melting point/range : Not applicable

Boiling point/boiling range : not determined

Flash point : 27 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit : not determined

Lower explosion limit : not determined

Vapour pressure : not determined

Density : 1.42 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 35,000 mPa.s (20 °C)

Method: ISO 2555

Viscosity, kinematic : > 20.5 mm2/s (40 °C)

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

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10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg

Method: Calculation method

Components:

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h

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Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate : 1,100 mg/kg

Method: Converted acute toxicity point estimate

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 17.4 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 15,400 mg/kg

Method: OECD Test Guideline 402

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 8,532 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 35.7 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 5,000 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

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Germ cell mutagenicity

Product:

Germ cell mutagenicity- As-

sessment

: Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

: Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

Product:

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

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

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SECTION 12: Ecological information

12.1 Toxicity

Components:

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

: EC50 (Algae): 675 mg/l Toxicity to algae

Exposure time: 72 h

Method: OECD Test Guideline 201

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Solvent naphtha (petroleum), light arom.:

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

: EC50 (Algae): 2.9 mg/l Toxicity to algae

Exposure time: 72 h

Method: OECD Test Guideline 201

ethylbenzene:

: LC50 (Fish): 12 mg/l Toxicity to fish

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 1.8 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l

Exposure time: 72 h

according to Regulation (EC) No. 1907/2006



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Method: OECD Test Guideline 201

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia (water flea)): 408 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic or-

ganisms, may cause long-term adverse effects in the aquatic

environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Contaminated packaging : Empty remaining contents.

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Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263 IMDG : UN 1263 IATA : UN 1263

14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA : Paint

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

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14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2 P₅c FLAMMABLE LIQUIDS 50,000 t 5,000 t 34 Petroleum products: (a) 2,500 t 25,000 t gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)

Volatile organic compounds : 497 g/l

Directive 2004/42/EC : (540 g/l)

Other regulations : The product is classified and labelled in accordance with EC

directives or respective national laws.

15.2 Chemical Safety Assessment

Not applicable

SECTION 16: Other information

Full text of R-Phrases

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.

R20/21 Harmful by inhalation and in contact with skin.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Full text of H-Statements

H225 Highly flammable liquid and vapour.

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H226	Flammable liquid and vapour.	
H304	May be fatal if swallowed and enters airwa	ys.
H312	Harmful in contact with skin.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H373	May cause damage to organs through prol if inhaled.	onged or repeated exposure
H411	Toxic to aquatic life with long lasting effect	S.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.