

SDS S-411 SDS S-412

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according to Regulation (EC) No. 1907/2006



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	SDS Number: H52276
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

on use

Trade name : S-411

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

only.

Use of the Substance/Mixture	:	Thinner
Recommended restrictions	:	For use in industrial installations or professional treatment

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.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated	H373: May cause damage to organs through



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exposure,	Category 2	prolonged or repeated exposure if inhaled.
Aspiration	hazard, Category 1	H304: May be fatal if swallowed and enters airways.
.2 Label elem	nents	
Labelling Hazard pio	(REGULATION (EC) ctograms :	No 1272/2008)
Signal wo	rd :	Danger
Hazard st	atements :	 H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
Precaution	nary statements :	Prevention:
		 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe vapours. P260 Do not breathe spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
		Response:
		P301 + P310 IF SWALLOWED: Immediately call a POISO CENTER/doctor. P331 Do NOT induce vomiting.
		Disposal:
		P501 Dispose of contents/ container to an approved waste disposal plant.
Hazardou	s components which r	nust be listed on the label:
	ixture of isomers)	
n-butyl ac	etate /-2-propanol	

ethylbenzene

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.



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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Paint

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
xylene (mixture of isomers)	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 20 - < 30
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 20 - < 30
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 2.5 - < 10
Substances with a workplace expo	sure limit :		•
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226	>= 20 - < 30
1-methoxy-2-propanol	107-98-2 203-539-1 603-064-00-3 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336	>= 20 - < 30

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. Show this safety data sheet to the doctor in attend Symptoms of poisoning may appear several hours Do not leave the victim unattended.	
If inhaled	Consult a physician after significant exposure. If unconscious, place in recovery position and seel advice.	(medical

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In case of sk	in contact	:	If on skin, rinse well with water. If on clothes, remove clothes.
In case of ey	re 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		:	Keep respiratory tract clear. 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. Take victim immediately to hospital.
4.2 Most importa	ant symptoms and	d e	ffects, both acute and delayed
Symptoms		:	Inhalation may provoke the following symptoms: Headache Dizziness Fatigue Weakness Skin contact may provoke the following symptoms: Redness Pain Ingestion may provoke the following symptoms:
			Abdominal pain Nausea Vomiting Diarrhoea
4.3 Indication of	anv immediate m	ned	Nausea Vomiting Diarrhoea
4.3 Indication of Treatment	any immediate m		Nausea Vomiting
Treatment	any immediate m refighting measu	:	Nausea Vomiting Diarrhoea ical attention and special treatment needed No information available.
Treatment	efighting measu	:	Nausea Vomiting Diarrhoea ical attention and special treatment needed No information available.
Treatment SECTION 5: Fir 5.1 Extinguishing	efighting measu	:	Nausea Vomiting Diarrhoea ical attention and special treatment needed No information available.
Treatment SECTION 5: Fir 5.1 Extinguishing	refighting measu g media nguishing media	:	Nausea Vomiting Diarrhoea lical attention and special treatment needed No information available.
Treatment SECTION 5: Fir 5.1 Extinguishing Suitable extin Unsuitable ex media	refighting measu g media nguishing media xtinguishing	: ure :	Nausea Vomiting Diarrhoea fical attention and special treatment needed No information available.
Treatment SECTION 5: Fir 5.1 Extinguishing Suitable extin Unsuitable ex media	refighting measu g media nguishing media xtinguishing rds arising from t	: ure :	Nausea Vomiting Diarrhoea fical attention and special treatment needed No information available. PS Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical High volume water jet

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products			
5.3 Advice fo Special p for firefigl	rotective equipment	:	In the event of fire, wear self-contained breathing apparatus.
Further ir	formation	:	Collect contaminated fire extinguishing water separately. This

For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.	Further information	separately in closed containments.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
6.2 Environmental precautions		
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. 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	:	Contain spillage, and then collect with non-combustible
		absorbent material, (e.g. sand, earth, diatomaceous earth,
		vermiculite) and place in container for disposal according to
		local / national regulations (see section 13).

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	: Avoid formation of aerosol.
	Do not breathe vapours/dust.
	Avoid exposure - obtain special instructions before use.
	For personal protection see section 8.
	Smoking, eating and drinking should be prohibited in the

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			application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
	Advice on protection agains fire and explosion	st :	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
	Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
7.2	Conditions for safe storag	e, inc	luding any incompatibilities
	Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
	Storage period	:	12 Months
	Further information on storage stability	:	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 recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis		
xylene (mixture of isomers)	1330-20-7	TWA	50 ppm 220 mg/m3	GB EH40		
Further information	Can be absor	Can be absorbed through skin. The assigned substances are those for which				
	there are con	there are concerns that dermal absorption will lead to systemic toxicity.				
		STEL	100 ppm	GB EH40		
			441 mg/m3			
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.					
		TWA	50 ppm	2000/39/EC		
			221 mg/m3			
Further information	Identifies the possibility of significant uptake through the skin, Indicative					

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		STEL	100 ppm 442 mg/m3	2000/39/E0
Further information	Identifies the	possibility of signifi	cant uptake through the skin,	Indicative
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
		STEL	200 ppm 966 mg/m3	GB EH40
2-methoxy-1- methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/E0
Further information	Identifies the	possibility of signifi	cant uptake through the skin,	Indicative
		STEL	100 ppm 550 mg/m3	2000/39/EC
Further information	Identifies the		cant uptake through the skin,	Indicative
		TWA	50 ppm 274 mg/m3	GB EH40
Further information			he assigned substances are	
	there are cor		bsorption will lead to systemic	
		STEL	100 ppm 548 mg/m3	GB EH40
Further information	there are cor	ncerns that dermal a	he assigned substances are t bsorption will lead to systemic	c toxicity.
1-methoxy-2- propanol	107-98-2	STEL	150 ppm 568 mg/m3	2000/39/E0
Further information	Identifies the		cant uptake through the skin,	
		TWA	100 ppm 375 mg/m3	2000/39/E0
Further information	Identifies the		cant uptake through the skin,	
		TWA	100 ppm 375 mg/m3	GB EH40
Further information			he assigned substances are t	
	there are cor		bsorption will lead to systemic	
		STEL	150 ppm 560 mg/m3	GB EH40
Further information	there are cor	ncerns that dermal a	he assigned substances are t bsorption will lead to systemic	c toxicity.
ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	2000/39/EC
Further information	Identifies the	· · ·	cant uptake through the skin,	
		STEL	200 ppm 884 mg/m3	2000/39/EC
Further information	Identifies the		cant uptake through the skin,	
		TWA	100 ppm 441 mg/m3	GB EH40
Further information			he assigned substances are	
	there are cor		bsorption will lead to systemic	· · · · · · · · · · · · · · · · · · ·
		STEL	125 ppm 552 mg/m3	GB EH40



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

Substance name	End Use	Exposure routes	Potential health effects	Value
xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m3
2-methoxy-1- methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
1-methoxy-2-propanol	Workers	Inhalation	Long-term local effects	369 mg/m3
ethylbenzene	Workers	Inhalation	Long-term systemic effects	77 mg/m3

8.2 Exposure controls

Personal protective equipm		
Eye protection	Eye wash bottle with Fightly fitting safety g	
Hand protection Material	Solvent-resistant glov	/es
Skin and body protection	, ,	on according to the amount and dangerous substance at the work place.
Respiratory protection	n the case of vapour approved filter.	formation use a respirator with an

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
рН	:	Not applicable
Melting point/range	:	not determined
Boiling point/boiling range	:	not determined
Flash point	:	28 °C Method: ISO 1523, closed cup Setaflash
Upper explosion limit / Upper flammability limit	:	not determined

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Lower explo flammability	osion limit / Lower / limit	: not determined
Vapour pres	ssure	: not determined
Density		: 0.900 g/cm3 (20 °C) Method: ISO 2811-1
Solubility(ie Water so		: immiscible
Viscosity Viscosity	y, dynamic	: Not applicable
9.2 Other inform No data ava		
SECTION 10:	Stability and react	tivity
10.2 Chemical	osition if stored and a stability position if stored and a	
-	of hazardous react	
Hazardous	reactions	: No decomposition if stored and applied as directed.
		Vapours may form explosive mixture with air.
10.4 Conditions Conditions		: Heat, flames and sparks.
10.5 Incompatil Materials to		: No data available
10.6 Hazardous No data ava	decomposition pro	oducts
SECTION 11:	Toxicological info	ormation
11.1 Informatio	n on toxicological e	effects
Acute toxic	city	
Product:		
Acute inhal	ation toxicity :	Acute toxicity estimate: > 20 mg/l Exposure time: 4 h Test atmosphere: vapour

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			Method: Calculation method
Acute de	rmal toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
<u>Compon</u>	ents:		
xylene (r	nixture of isomer	s):	
Acute ora	al toxicity	:	LD50 Oral (Rat): 4,300 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	:	LC50 (Rat): 22.08 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute de	rmal toxicity	:	Acute toxicity estimate: 1,100 mg/kg Method: Converted acute toxicity point estimate
n-butyl a	cetate:		
Acute ora	al toxicity	:	LD50 Oral (Rat): 10,768 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	:	LC50 (Rat): 23.4 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute de	rmal toxicity	:	LD50 (Rabbit): 17,600 mg/kg Method: OECD Test Guideline 402
ethylben	zene:		
Acute ora	al toxicity	:	LD50 Oral (Rat): 3,500 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	:	LC50 (Rat): 17.4 mg/l Exposure time: 4 h Test atmosphere: gas Method: OECD Test Guideline 403
Acute de	rmal toxicity	:	LD50 (Rabbit): 15,400 mg/kg Method: OECD Test Guideline 402
2-metho	xy-1-methylethyl	aceta	te:
Acute ora		:	LD50 Oral (Rat): 8,532 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	:	LC50 (Rat): 35.7 mg/l Exposure time: 4 h Test atmosphere: gas Method: OECD Test Guideline 403

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Acute dern	nal toxicity	:	LD50 (Rat): 5,000 mg/kg Method: OECD Test Guideline 402
1-methoxy	/-2-propanol:		
Acute oral	toxicity	:	LD50 Oral (Rat): 4,016 mg/kg
Acute inha	lation toxicity	:	LC50 (Rat): 5,456 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute dern	nal toxicity	:	Acute toxicity estimate: 13,000 mg/kg Method: Converted acute toxicity point estimate
Skin corro	osion/irritation		
<u>Product:</u> Result: Ski	n irritation		
Serious ey	ye damage/eye irr	itati	on
Product: Remarks:	Severe eye irritatio	n	
Respirato	ry or skin sensitis	satic	on
Product: Remarks:	Based on available	e dat	a, the classification criteria are not met.
Germ cell	mutagenicity		
Product: Germ cell i Assessme	mutagenicity- nt	:	Based on available data, the classification criteria are not me
Carcinoge	enicity		
Product: Carcinoger Assessmer		:	Based on available data, the classification criteria are not me
Reproduc	tive toxicity		
Product:			
Reproducti	ive toxicity -		Based on available data, the classification criteria are not me



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STOT - single exposure

Product:

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

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

xylene (mixture of isomers):

Toxicity to fish	:	LC50 (Fish): 14 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 16 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae		EC50 (Algae): > 10 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
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

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Т	oxicity to algae	:	EC50 (Algae): 675 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
e	thylbenzene:		
	oxicity to fish	:	LC50 (Fish): 12 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	oxicity to daphnia and other quatic invertebrates	:	EC50 (Daphnia (water flea)): 1.8 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
т	oxicity to algae	:	EC50 (Algae): 33 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
2	-methoxy-1-methylethyl ac	eta	te:
	oxicity to fish		LC50 (Fish): 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	oxicity to daphnia and other quatic invertebrates	:	EC50 (Daphnia (water flea)): 408 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
т	oxicity to algae	:	EC50 (Algae): 1,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
1.	-methoxy-2-propanol:		
	oxicity to fish	:	LC50 (Fish): 20,800 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	oxicity to daphnia and other quatic invertebrates	:	EC50 (Daphnia (water flea)): 23,300 mg/l Exposure time: 48 h
Т	oxicity to algae	:	EC50 (Algae): 10 mg/l Exposure time: 72 h
	ersistence and degradabili o data available	ity	
	lioaccumulative potential		
	o data available		
	lobility in soil o data available		



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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	:	There is no data available for this product.
information		

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 chemical or used container. Send to a licensed waste management 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		
IMDG	:	UN 1263
IATA (Cargo)	:	UN 1263
14.2 UN proper shipping name		
ADR	:	PAINT RELATED MATERIAL
IMDG	:	PAINT RELATED MATERIAL
IATA (Cargo)	:	Paint related material
14.3 Transport hazard class(es)		
ADR	:	3
IMDG	:	3
IATA (Cargo)	:	3
14.4 Packing group		
ADR		

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	Packing group Classification Code Hazard Identification Number Labels	-	III F1 30 3	
	IMDG Packing group Labels EmS Code	::	III 3 F-E, <u>S-E</u>	
	IATA (Cargo) Packing instruction (cargo aircraft) Packing instruction (LQ) Packing group Labels	:	366 Y344 III Flammable Liquids	
14.	5 Environmental hazards			
	ADR Environmentally hazardous	:	no	

Marine pollutant : no

14.6 Special precautions for user

Not applicable

IMDG

14.7 Transport in bulk according to Annex II of Marpol 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	5,000 t	50,000 t

Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

SECTION 16: Other information

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.

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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
11575	•	exposure.
H373		May cause damage to organs through prolonged or repeated
		exposure if inhaled.
H412	:	Harmful to aquatic life with long lasting effects.
Full text of	other abbreviations	
Acute Tox.		Acute toxicity
Aquatic Chr	onic :	Chronic aquatic toxicity
Asp. Tox.	÷	Aspiration hazard
Eye Irrit.		Eye irritation
Flam. Liq.		Flammable liquids
Skin Irrit.		Skin irritation
STOT RE		Specific target organ toxicity - repeated exposure
STOT SE		Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first
		list of indicative occupational exposure limit values
GB EH40		UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC		Limit Value - eight hours
2000/39/EC		Short term exposure limit
GB EH40 / 1 GB EH40 / \$		Long-term exposure limit (8-hour TWA reference period) Short-term exposure limit (15-minute reference period)
Waterways; Goods by R for the Tes Regulation; Toxicant; DI List (Canac number; EC x% respons (Japan); Er Harmonized on Cancer; Construction inhibitory co Existing Che Internationa Internationa - Lethal Co population fro Concentratio Loading Rat Co-operation PBT - Pers Chemicals a REACH - F	ADR - European A oad; AICS - Australia sting of Materials; b Regulation (EC) N N - Standard of the G la); ECHA - Europe x - Concentration as e; EmS - Emergend Cx - Concentration I System; GLP - Goo IATA - International oncentration; ICAO - emical Substances in I Maritime Organiza I Organisation for Sta oncentration to 50 % (Median Lethal Dose m Ships; n.o.s Not cn; NZIoC - New Zea n and Development; sistent, Bioaccumula and Chemical Subst Regulation (EC) No	cerning the International Carriage of Dangerous Goods by Inland greement concerning the International Carriage of Dangerous an Inventory of Chemical Substances; ASTM - American Society by - Body weight; CLP - Classification Labelling Packaging o 1272/2008; CMR - Carcinogen, Mutagen or Reproductive German Institute for Standardisation; DSL - Domestic Substances ean Chemicals Agency; EC-Number - European Community sociated with x% response; ELx - Loading rate associated with cy Schedule; ENCS - Existing and New Chemical Substances associated with x% growth rate response; GHS - Globally d Laboratory Practice; IARC - International Agency for Research d Air Transport Association; IBC - International Code for the Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal International Civil Aviation Organization; IECSC - Inventory of o China; IMDG - International Maritime Dangerous Goods; IMO - tion; ISHL - Industrial Safety and Health Law (Japan); ISO - andardization; KECI - Korea Existing Chemicals Inventory; LC50 6 of a test population; LD50 - Lethal Dose to 50% of a test e); MARPOL - International Convention for the Prevention of o Cherwise Specified; NO(A)EC - No Observed (Adverse) Effect baserved (Adverse) Effect Level; NOELR - No Observable Effect land Inventory of Chemicals; OECD - Organization for Economic OPPTS - Office of Chemical Safety and Pollution Prevention; tive and Toxic substance; PICCS - Philippines Inventory of ances; (Q)SAR - (Quantitative) Structure Activity Relationship; 1907/2006 of the European Parliament and of the Council valuation, Authorisation and Restriction of Chemicals; RID -



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Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu compile the Safety Data Sheet

Classification of the	e mixture:	Classification procedure:
Flam. Liq. 3	H226	Based on product data or assessment
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method
Asp. Tox. 1	H304	Based on product data or assessment

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.

GB / EN

according to Regulation (EC) No. 1907/2006



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

1.1 Product identifier

on use

Trade name : S-412

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

only.

Use of the Substance/Mixture	:	Thinner
Recommended restrictions	:	For use in industrial installations or professional treatment

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 127 Flammable liquids, Category 3	2/2008) H226: Flammable liquid and vapour.
Specific target organ toxicity - single	H336: May cause drowsiness or dizziness.
exposure, Category 3, Central nervous system	
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006



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Hazard pic	ctograms	:	
Signal wor	ď	:	Danger
Hazard sta	atements	:	 H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. H412 Harmful to aquatic life with long lasting effects.
Suppleme Statement	ntal Hazard s	:	EUH066 Repeated exposure may cause skin dryness or cracking.
Precautior	nary statements	:	 Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe vapours. P260 Do not breathe spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
			Response: P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor. P331 Do NOT induce vomiting.
			Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.
n-butyl ace 1-methoxy Hydrocarb	etate 7-2-propanol ons, C9, aromatio	cs	nust be listed on the label: <1% naphthalene

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

Hazardous components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		. ,
	Registration number		

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ersion I	Revision Date: 20.03.2018		SDS Number: H52275	
n-butyl acet	ate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 30 - < 50
Hydrocarbo	ns, C9, aromatics	Not Assigned 918-668-5 01-2119455851-35	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336, EUH066 Aquatic Chronic 2; H411	>= 2.5 - < 10
<1% naphth		Not Assigned 918-811-1 01-2119463583-34	STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Aquatic Chronic 2; H411	>= 2.5 - < 10
2-butoxyeth	yl acetate	112-07-2 203-933-3 607-038-00-2 01-2119475112-47	Acute Tox. 4; H302 Acute Tox. 4; H312	>= 1 - < 10
diacetone a	lcohol	123-42-2 204-626-7 603-016-00-1 01-2119473975-21	Flam. Liq. 3; H226 Eye Irrit. 2; H319 STOT SE 3; H335	>= 1 - < 10
naftaleno		91-20-3 202-049-5 601-052-00-2 01-2119561346-37	Acute Tox. 4; H302 Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.025 - < 0.1
	with a workplace exp	osure limit :		
2-methoxy-	1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226	>= 20 - < 30
1-methoxy-	2-propanol ation of abbreviations s	107-98-2 203-539-1 603-064-00-3 01-2119457435-35	Flam. Liq. 3; H226 STOT SE 3; H336	>= 10 - < 20

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.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.

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If inhaled		If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of s	kin contact	If on skin, rinse well with water. If on clothes, remove clothes.
In case of e	ye 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	ł	Keep respiratory tract clear. 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. Take victim immediately to hospital.
4.2 Most import	ant symptoms an	effects, both acute and delayed
Symptoms		Inhalation may provoke the following symptoms: Headache Dizziness Fatigue Weakness Skin contact may provoke the following symptoms: Redness Pain Ingestion may provoke the following symptoms: Abdominal pain Nausea Vomiting Diarrhoea
1.2 Indication o	f any immediate r	adiaal attention and anazial treatment paeded
4.5 INDICATION O	i any immediate n	edical attention and special treatment needed No information available.

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during : Do not allow run-off from fire fighting to enter drains or water



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	firefighting		courses.
	Hazardous combustion products	:	No hazardous combustion products are known
5.3	Advice for firefighters		
	Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
	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 separately in closed containments. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form o concentrations. Vapours can accumulate	
--	--

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains.
		Prevent further leakage or spillage if safe to do so.
		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	:	Contain spillage, and then collect with non-combustible
		absorbent material, (e.g. sand, earth, diatomaceous earth,
		vermiculite) and place in container for disposal according to
		local / national regulations (see section 13).

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling
- : Avoid formation of aerosol. Do not breathe vapours/dust.

according to Regulation (EC) No. 1907/2006



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			For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
	Advice on protection agair ire and explosion	ist :	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
ł	Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
7.2 C	onditions for safe storage	ge, inc	luding any incompatibilities
	Requirements for storage areas and containers	:	No smoking. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
5	Storage period	:	12 Months
	Further information on storage stability	:	No decomposition if stored and applied as directed.
	pecific end use(s) Specific use(s)	:	For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
		STEL	200 ppm 966 mg/m3	GB EH40
2-methoxy-1- methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 550 mg/m3	2000/39/EC

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Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		TWA	50 ppm	GB EH40
			274 mg/m3	
Further information	Can be absor	bed through skin. Th	e assigned substances are t	hose for which
			sorption will lead to systemic	
		STEL	100 ppm	GB EH40
		• •	548 mg/m3	
Further information	Can be absor	bed through skin. Th	le assigned substances are t	hose for which
			sorption will lead to systemic	
1-methoxy-2-	107-98-2	STEL	150 ppm	2000/39/EC
propanol		•••==	568 mg/m3	
Further information	Identifies the	possibility of signific:	ant uptake through the skin, I	ndicative
		TWA	100 ppm	2000/39/EC
			375 mg/m3	2000/00/20
Further information	Identifies the	l nossibility of signific	ant uptake through the skin, I	ndicative
	identifies the	TWA	100 ppm	GB EH40
		IVVA	375 mg/m3	GB EI 140
Further information	Can be abaar	 had through aldin. Th		haaa far which
Further information			e assigned substances are t	
	there are con-		sorption will lead to systemic	
		STEL	150 ppm	GB EH40
<u>–</u>			560 mg/m3	
Further information			e assigned substances are t	
			sorption will lead to systemic	
2-butoxyethyl	112-07-2	TWA	20 ppm	2000/39/EC
acetate			133 mg/m3	
Further information	Identifies the		ant uptake through the skin, I	
		STEL	50 ppm	2000/39/EC
			333 mg/m3	
Further information	Identifies the		ant uptake through the skin, I	
		TWA	20 ppm	GB EH40
Further information	Can be absor	bed through skin. Th	e assigned substances are t	hose for which
	there are con-	cerns that dermal ab	sorption will lead to systemic	toxicity.
		STEL	50 ppm	GB EH40
Further information	Can be absor	bed through skin. Th	e assigned substances are t	hose for which
			sorption will lead to systemic	
diacetone alcohol	123-42-2	TWA	50 ppm	GB EH40
			241 mg/m3	
		STEL	75 ppm	GB EH40
			362 mg/m3	52 2.110
naftaleno	91-20-3	TWA	10 ppm	91/322/EEC
nanalono	01200		50 mg/m3	51/022/220
Further information	Indicative	<u> </u>	00 mg/m0	
	mulcalive			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m3
2-methoxy-1- methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
1-methoxy-2-propanol	Workers	Inhalation	Long-term local	369 mg/m3

according to Regulation (EC) No. 1907/2006



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			effects	
Hydrocarbons, C10, aromatics, <1% naphthalene	Workers	Skin contact	Long-term systemic effects	12.5 mg/m3
	Workers	Inhalation	Long-term systemic effects	151 mg/m3
	Consumers	Ingestion	Long-term systemic effects	7.5 mg/m3
	Consumers	Skin contact	Long-term systemic effects	7.5 mg/m3
	Consumers	Inhalation	Long-term systemic effects	32 mg/m3
2-butoxyethyl acetate	Workers	Inhalation	Long-term systemic effects	133 mg/m3
4-hydroxy-4- methylpentan-2-one	Workers	Inhalation	Long-term systemic effects	66.4 mg/m3
	Workers	Inhalation	Long-term local effects	66.4 mg/m3
naphthalene	Workers	Skin contact	Long-term systemic effects	3.57 mg/m3
	Workers	Inhalation	Long-term systemic effects	25 mg/m3
	Workers	Inhalation	Long-term local effects	25 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
naphthalene	Soil	0.0533 mg/l
	Fresh water	0.0024 mg/l
	Marine water	0.0024 mg/l
	Fresh water sediment	0.0672 mg/l
	Marine sediment	0.0672 mg/l
	Sewage treatment plant	2.9 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles
Hand protection Material	:	Solvent-resistant gloves
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

according to Regulation (EC) No. 1907/2006



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Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
рН	:	Not applicable
Melting point/rang	ge :	not determined
Boiling point/boili	ng range :	not determined
Flash point	:	34 °C Method: ISO 1523, closed cup Setaflash
Upper explosion I flammability limit	imit / Upper :	not determined
Lower explosion I flammability limit	imit / Lower :	not determined
Vapour pressure	:	not determined
Density	:	0.914 g/cm3 (20 °C) Method: ISO 2811-1
Solubility(ies) Water solubilit	у :	immiscible
Viscosity Viscosity, dyna	amic :	Not applicable
9.2 Other information	ı	
No data available	•	

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

according to Regulation (EC) No. 1907/2006



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10.5 Incompatib	le materials	
Materials to	avoid :	No data available
10.6 Hazardous No data avai	decomposition pro	ducts
SECTION 11: T	oxicological infor	mation
11.1 Information	on toxicological ef	fects
Acute toxic	ity	
Product:		
Acute oral to	exicity :	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute derma	al toxicity :	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
<u>Component</u>	<u>:S:</u>	
n-butyl acet	ate:	
Acute oral to	exicity :	LD50 Oral (Rat): 10,768 mg/kg Method: OECD Test Guideline 401
Acute inhala	tion toxicity :	LC50 (Rat): 23.4 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute derma	al toxicity :	LD50 (Rabbit): 17,600 mg/kg Method: OECD Test Guideline 402
Hydrocarbo	ons, C9, aromatics:	
Acute oral to		LD50 Oral (Rat): 8,400 mg/kg
Acute inhala	tion toxicity :	LC50 (Rat): 3400 ppm Exposure time: 4 h Test atmosphere: vapour
2-butoxyeth	yl acetate:	
Acute oral to	exicity :	LD50 Oral (Rat): 1,880 mg/kg Method: OECD Test Guideline 401
Acute inhala	tion toxicity :	LC50 (Rat): 20 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute derma	al toxicity :	Acute toxicity estimate: 1,100 mg/kg Method: Converted acute toxicity point estimate

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diacetone alo	cohol:	
Acute oral tox	cicity :	LD50 Oral (Rat): 3,002 mg/kg Method: OECD Test Guideline 401
Acute inhalati	on toxicity :	LC50 (Rat): 38 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal	toxicity :	LD50 (Rabbit): 13,750 mg/kg Method: OECD Test Guideline 402
naftaleno:		
Acute oral tox	cicity :	Acute toxicity estimate: 500 mg/kg Method: Converted acute toxicity point estimate
2-methoxy-1-	-methylethyl aceta	ate:
Acute oral tox	cicity :	LD50 Oral (Rat): 8,532 mg/kg Method: OECD Test Guideline 401
Acute inhalati	on toxicity :	LC50 (Rat): 35.7 mg/l Exposure time: 4 h Test atmosphere: gas Method: OECD Test Guideline 403
Acute dermal	toxicity :	LD50 (Rat): 5,000 mg/kg Method: OECD Test Guideline 402
1-methoxy-2-	-propanol:	
Acute oral tox		LD50 Oral (Rat): 4,016 mg/kg
Acute inhalati	on toxicity :	LC50 (Rat): 5,456 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute dermal	toxicity :	Acute toxicity estimate: 13,000 mg/kg Method: Converted acute toxicity point estimate
<u>.</u>		

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

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



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Respiratory	or skin sensitisatio	on
Product: Remarks: Ba	ased on available dat	ta, the classification criteria are not met.
Germ cell m	nutagenicity	
Product: Germ cell m Assessment		Based on available data, the classification criteria are not met.
Carcinogen	icity	
Product: Carcinogenio Assessment		Based on available data, the classification criteria are not met.
Reproductiv	ve toxicity	
Product: Reproductive Assessment	•	Based on available data, the classification criteria are not met.
STOT - sing	le exposure	
Product:		nixture is classified as specific target organ toxicant, single

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

STOT - repeated exposure

Product:

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

Aspiration toxicity

Product: May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: 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
Toxicity to algae	:	EC50 (Algae): 675 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Hydrocarbons, C9, aromatic	s:	
Toxicity to fish	:	LC50 (Fish): 9.22 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 6.14 mg/l Exposure time: 48 h
Hydrocarbons, C10, aromat	ics,	<1% naphthalene:
Toxicity to fish	:	LC50 (Fish): 1 - 10 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Crustaceans): 1 - 10 mg/l
Toxicity to algae	:	EC50 (Algae): 1 - 10 mg/l
2-butoxyethyl acetate:		
Toxicity to fish	:	LC50 (Fish): 28 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 37 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Algae): 1,570 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
diacetone alcohol: Toxicity to fish	:	LC50 (Fish): 420 mg/l

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			Exposure time: 96 h Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): > 1,000 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
l	naftaleno:		
	Toxicity to fish	:	LC50 (Fish): 0.1 - 1 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 0.1 - 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
	Toxicity to algae	:	EC50 (Algae): 0.1 - 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
:	2-methoxy-1-methylethyl ac	etat	te:
	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
	1-methoxy-2-propanol:		
	Toxicity to fish	:	LC50 (Fish): 20,800 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 23,300 mg/l Exposure time: 48 h
	Toxicity to algae	:	EC50 (Algae): 10 mg/l Exposure time: 72 h



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12.2 Persistence a	and degradability	
Components:		
Hydrocarbons	s, C10, aromatics	, <1% naphthalene:
Biodegradabili	ty :	Biodegradation: 50 % Exposure time: 28 d
naftaleno:		
Biodegradabili	ty :	Concentration: 100 mg/l Biodegradation: 2 % Exposure time: 28 d
12.3 Bioaccumula	tive potential	
Components:	<u>.</u>	
naftaleno:		
Bioaccumulatio	on :	Bioconcentration factor (BCF): 168
Partition coeffi octanol/water	cient: n- :	log Pow: 3.3
12.4 Mobility in so	il	
No data availa	ble	
12.5 Results of PB	BT and vPvB asse	ssment
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	e effects	
Product:		
Additional ecol information	logical :	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.
SECTION 13: Dis	sposal consider	ations
13.1 Waste treatm	ent methods	
Product	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.

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: Tra	nsport informa	tion
14.1 UN number		
IMDG	:	UN 1263
IATA (Cargo)	:	UN 1263
14.2 UN proper shi	pping name	
ADR	:	PAINT RELATED MATERIAL
IMDG	:	PAINT RELATED MATERIAL
IATA (Cargo)	:	Paint related material
14.3 Transport haz	ard class(es)	
ADR	:	3
IMDG	:	3
IATA (Cargo)	:	3
4.4 Packing group)	
ADR Packing group Classification C Hazard Identific Labels		III F1 30 3
IMDG Packing group Labels EmS Code	:	S III 3 F-E, <u>S-E</u>
IATA (Cargo) Packing instruc aircraft)	tion (cargo :	366
Packing instruc Packing group Labels	tion (LQ) :	Y344 III Flammable Liquids
14.5 Environmenta	l hazards	
ADR Environmentally IMDG	y hazardous :	no
Marine pollutan	t :	no
14.6 Special precat Not applicable	utions for user	



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14.7 Transport in bulk according to Annex II of Marpol 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.

·,· · · · · · · · · · · · · · · · · · ·	3 3	Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5,000 t	50,000 t

Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

SECTION 16: Other information

Full text of H-Statements

EUH066	:	Repeated exposure may cause skin dryness or cracking.
H226	:	Flammable liquid and vapour.
H302	:	Harmful if swallowed.
H304	:	May be fatal if swallowed and enters airways.
H312	:	Harmful in contact with skin.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
H351	:	Suspected of causing cancer.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.
H411	:	Toxic to aquatic life with long lasting effects.
Full text of other abbreviation	ons	
Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Asp. Tox.	:	Aspiration hazard
Carc.	:	Carcinogenicity
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
STOT SE	:	Specific target organ toxicity - single exposure
2000/39/EC	:	Europe. Commission Directive 2000/39/EC establishing a first
		list of indicative occupational exposure limit values
91/322/EEC	:	Europe. Commission Directive 91/322/EEC on establishing
		indicative limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA	:	Limit Value - eight hours
2000/39/EC / STEL	:	Short term exposure limit

according to Regulation (EC) No. 1907/2006



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91/322/EEC / TWA	:	Limit Value - eight hours
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail: SADT - Self-Accelerating Decomposition Temperature: SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu compile the Safety Data Sheet

Classification of the m	nixture:	Classification procedure:	
Flam. Liq. 3	H226	Based on product data or assessment	
STOT SE 3	H336	Calculation method	
Asp. Tox. 1	H304	Based on product data or assessment	
Aquatic Chronic 3	H412	Calculation method	

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



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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.

GB / EN

according to Regulation (EC) No. 1907/2006



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

1.1 Product identifier

on use

Trade name : S-414

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

only.

Use of the Substance/Mixture	:	Thinner
Recommended restrictions	:	For use in industrial installations or professional treatment

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 127 Flammable liquids, Category 3	2/2008) H226: Flammable liquid and vapour.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006



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ersion 1	Revision Date 20.03.2018	e:	SDS Number: H52274
Hazard pictog	ırams :	ł	
Signal word	:	Dange	er
Hazard staten	nents :	H226 H304 H336 H412	Flammable liquid and vapour. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.
Supplemental Statements	Hazard :	EUH0 dryne:	66 Repeated exposure may cause skin ss or cracking.
Precautionary	statements :	Preve P210 flames P260 P260 P280	1
		Resp	onse:
		P301	+ P310 IF SWALLOWED: Immediately call a POISON ER/doctor. Do NOT induce vomiting.
		Dispo P501 dispos	sal: Dispose of contents/ container to an approved waste sal plant.
n-butyl acetat	e s, C10, aromatics		listed on the label: phthalene

1-methoxy-2-propanol Hydrocarbons, C9, aromatics

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

Chemical name CAS-No. EC-No.	Classification	Concentration (% w/w)
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	Index-No.		
	Registration number		
n-butyl acetate	123-86-4	Flam. Liq. 3; H226	>= 20 - < 30
	204-658-1	STOT SE 3; H336	20 100
	607-025-00-1		
	01-2119485493-29		
2-butoxyethyl acetate	112-07-2	Acute Tox. 4; H302	>= 20 - < 30
···· , ··· , ··· .	203-933-3	Acute Tox. 4; H312	
	607-038-00-2	,	
	01-2119475112-47		
Hydrocarbons, C10, aromatics,	Not Assigned	STOT SE 3; H336	>= 2.5 - < 10
<1% naphthalene	918-811-1	Asp. Tox. 1; H304	
	01-2119463583-34	Aquatic Acute 1; H400	
		Aquatic Chronic 1; H410	
		Aquatic Chronic 2;	
		H411	
Hydrocarbons, C9, aromatics	Not Assigned	Flam. Liq. 3; H226	>= 1 - < 2.5
	918-668-5	Asp. Tox. 1; H304	
	01-2119455851-35	STOT SE 3; H335	
		STOT SE 3; H336,	
		EUH066	
		Aquatic Chronic 2;	
		H411	
diacetone alcohol	123-42-2	Flam. Liq. 3; H226	>= 1 - < 10
	204-626-7	Eye Irrit. 2; H319	
	603-016-00-1	STOT SE 3; H335	
noffelene	01-2119473975-21		0.005
naftaleno	91-20-3	Acute Tox. 4; H302 Carc. 2; H351	>= 0.025 - <
	202-049-5 601-052-00-2	Aquatic Acute 1;	0.1
	01-2119561346-37	H400	
	01-2119501540-57	Aquatic Chronic 1;	
		H410	
Substances with a workplace expo	sure limit :		
2-methoxy-1-methylethyl acetate	108-65-6	Flam. Liq. 3; H226	>= 30 - < 50
	203-603-9		
	607-195-00-7		
	01-2119475791-29		
1-methoxy-2-propanol	107-98-2	Flam. Liq. 3; H226	>= 1 - < 10
	203-539-1	STOT SE 3; H336	
	603-064-00-3		
	01-2119457435-35		

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.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later.

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			Do not leave the victim unattended.
lf inhaled		:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of	skin contact	:	If on skin, rinse well with water. If on clothes, remove clothes.
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 swallow	red	:	Keep respiratory tract clear. 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. Take victim immediately to hospital.
4.2 Most impo	ortant symptoms a	nd e	effects, both acute and delayed
Symptom	s	:	Inhalation may provoke the following symptoms: Headache Dizziness Fatigue Weakness Skin contact may provoke the following symptoms: Redness Pain Ingestion may provoke the following symptoms: Abdominal pain Nausea
			Vomiting Diarrhoea
4.3 Indication	of any immediate	med	

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet



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5.2	Special hazards	arising from	the	e substance or mixture
	Specific hazard firefighting	s during	:	Do not allow run-off from fire fighting to enter drains or water courses.
	Hazardous com products	bustion	:	No hazardous combustion products are known
5.3	Advice for firefi	ghters		
	Special protecti for firefighters	ve equipment	:	In the event of fire, wear self-contained breathing apparatus.
	Further informa	tion	:	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 separately in closed containments. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions :	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
------------------------	--

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains.
		Prevent further leakage or spillage if safe to do so.
		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	:	Contain spillage, and then collect with non-combustible
		absorbent material, (e.g. sand, earth, diatomaceous earth,
		vermiculite) and place in container for disposal according to
		local / national regulations (see section 13).

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

according to Regulation (EC) No. 1907/2006



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	Advice on safe har	idling :	Avoid formation of aerosol. Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
	Advice on protectic fire and explosion	on against :	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
	Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
7.2	Conditions for safe	e storage, inc	luding any incompatibilities
	Requirements for s areas and containe		No smoking. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
	Storage period	:	12 Months
	Further information storage stability	on :	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 recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-methoxy-1- methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 550 mg/m3	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm	GB EH40

according to Regulation (EC) No. 1907/2006



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			274 mg/m3	
Further information			he assigned substances are t sorption will lead to systemic	
		STEL	100 ppm 548 mg/m3	GB EH40
Further information			he assigned substances are t sorption will lead to systemic	
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
		STEL	200 ppm 966 mg/m3	GB EH40
2-butoxyethyl acetate	112-07-2	TWA	20 ppm 133 mg/m3	2000/39/EC
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		STEL	50 ppm 333 mg/m3	2000/39/EC
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
		TWA	20 ppm	GB EH40
Further information			he assigned substances are t sorption will lead to systemic	
		STEL	50 ppm	GB EH40
Further information	Can be absor	bed through skin. Th	e assigned substances are t	hose for which
			sorption will lead to systemic	
1-methoxy-2- propanol	107-98-2	STEL	150 ppm 568 mg/m3	2000/39/EC
Further information	Identifies the	ntifies the possibility of significant uptake through the skin, Indicative		
		TWA	100 ppm 375 mg/m3	2000/39/EC
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		TWA	100 ppm 375 mg/m3	GB EH40
Further information	, and the second s			
		STEL	150 ppm 560 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.			
diacetone alcohol	123-42-2	TWA	50 ppm 241 mg/m3	GB EH40
		STEL	75 ppm 362 mg/m3	GB EH40
naftaleno	91-20-3	TWA	10 ppm 50 mg/m3	91/322/EEC
Further information	Indicative			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
2-methoxy-1- methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
n-butyl acetate	Workers	Inhalation	Long-term systemic	480 mg/m3

according to Regulation (EC) No. 1907/2006



66.4 mg/m3

3.57 mg/m3

25 mg/m3

25 mg/m3

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Workers

Workers

Workers

Workers

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Long-term local

Long-term systemic

Long-term systemic

Long-term local

effects

effects

effects

effects

_0.001				
			effects	
2-butoxyethyl acetate	Workers	Inhalation	Long-term systemic effects	133 mg/m3
Hydrocarbons, C10, aromatics, <1% naphthalene	Workers	Skin contact	Long-term systemic effects	12.5 mg/m3
	Workers	Inhalation	Long-term systemic effects	151 mg/m3
	Consumers	Ingestion	Long-term systemic effects	7.5 mg/m3
	Consumers	Skin contact	Long-term systemic effects	7.5 mg/m3
	Consumers	Inhalation	Long-term systemic effects	32 mg/m3
1-methoxy-2-propanol	Workers	Inhalation	Long-term local effects	369 mg/m3
4-hydroxy-4- methylpentan-2-one	Workers	Inhalation	Long-term systemic effects	66.4 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Inhalation

Inhalation

Inhalation

Skin contact

Substance name	Environmental Compartment	Value
naphthalene	Soil	0.0533 mg/l
	Fresh water	0.0024 mg/l
	Marine water	0.0024 mg/l
	Fresh water sediment	0.0672 mg/l
	Marine sediment	0.0672 mg/l
	Sewage treatment plant	2.9 mg/l

8.2 Exposure controls

naphthalene

Personal protective equipment Eye protection Eye wash bottle with pure water : Tightly fitting safety goggles Hand protection Material : Solvent-resistant gloves Skin and body protection Impervious clothing : Choose body protection according to the amount and concentration of the dangerous substance at the work place. Respiratory protection In the case of vapour formation use a respirator with an : approved filter.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
рН	:	Not applicable
Melting point/range	:	not determined
Boiling point/boiling range	:	120.1 °C (7.6 hPa)
Flash point	:	39 °C Method: ISO 1523, closed cup Setaflash
Vapour pressure	:	49 hPa (50 °C)
		7.2 hPa (20 °C)
Density	:	0.925 g/cm3 (20 °C) Method: ISO 2811-1
Solubility(ies) Water solubility	:	immiscible
Viscosity Viscosity, dynamic	:	Not applicable

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

according to Regulation (EC) No. 1907/2006



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0.5 Incompa	tible materials	
Materials		: No data available
10.6 Hazardo u No data a	us decomposition pr vailable	oducts
SECTION 11	: Toxicological info	ormation
1.1 Informati	on on toxicological	effects
Acute to	kicity	
Product:		
Acute ora	I toxicity	: Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute der	mal toxicity	: Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Compone	ents:	
n-butyl a	cetate:	
Acute ora	I toxicity	: LD50 Oral (Rat): 10,768 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	: LC50 (Rat): 23.4 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute der	mal toxicity	: LD50 (Rabbit): 17,600 mg/kg Method: OECD Test Guideline 402
2-butoxy	ethyl acetate:	
Acute ora	-	: LD50 Oral (Rat): 1,880 mg/kg Method: OECD Test Guideline 401
Acute inh	alation toxicity	: LC50 (Rat): 20 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute der	mal toxicity	 Acute toxicity estimate: 1,100 mg/kg Method: Converted acute toxicity point estimate
Hydrocar	bons, C9, aromatics	:
Acute ora	I toxicity	: LD50 Oral (Rat): 8,400 mg/kg
Acute inha	alation toxicity	: LC50 (Rat): 3400 ppm
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			Exposure time: 4 h Test atmosphere: vapour
diacetone	alcohol:		
Acute oral t	oxicity	:	LD50 Oral (Rat): 3,002 mg/kg Method: OECD Test Guideline 401
Acute inhal	ation toxicity	:	LC50 (Rat): 38 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute derm	al toxicity	:	LD50 (Rabbit): 13,750 mg/kg Method: OECD Test Guideline 402
naftaleno:			
Acute oral t	oxicity	:	Acute toxicity estimate: 500 mg/kg Method: Converted acute toxicity point estimate
2-methoxy	-1-methylethyl ace	eta	te:
Acute oral f			LD50 Oral (Rat): 8,532 mg/kg Method: OECD Test Guideline 401
Acute inhal	ation toxicity	:	LC50 (Rat): 35.7 mg/l Exposure time: 4 h Test atmosphere: gas Method: OECD Test Guideline 403
Acute derm	al toxicity	:	LD50 (Rat): 5,000 mg/kg Method: OECD Test Guideline 402
1-methoxy	-2-propanol:		
Acute oral t		:	LD50 Oral (Rat): 4,016 mg/kg
Acute inhal	ation toxicity	:	LC50 (Rat): 5,456 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
Acute derm	al toxicity	:	Acute toxicity estimate: 13,000 mg/kg Method: Converted acute toxicity point estimate

Skin corrosion/irritation

Product:

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

Serious eye damage/eye irritation

Product:

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

according to Regulation (EC) No. 1907/2006



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Respiratory or skin sensitisation

Product:

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

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment	:	Based on available data, the classification criteria are not met.

Carcinogenicity

Product:		
Carcinogenicity - Assessment	:	Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity -	:	Based on available data, the classification criteria are not met.
Assessment		

STOT - single exposure

Product:

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

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: 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

:

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			Method: OECD Test Guideline 203
	city to daphnia and other atic invertebrates	:	EC50 (Daphnia (water flea)): 32 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxic	city to algae	:	EC50 (Algae): 675 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
2-bu	toxyethyl acetate:		
Toxic	city to fish	:	LC50 (Fish): 28 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	city to daphnia and other atic invertebrates	:	EC50 (Daphnia (water flea)): 37 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxi	city to algae	:	EC50 (Algae): 1,570 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Hvdi	rocarbons, C10, aromati	cs.	<1% naphthalene:
-	city to fish	:	LC50 (Fish): 1 - 10 mg/l Exposure time: 96 h
	city to daphnia and other atic invertebrates	:	EC50 (Crustaceans): 1 - 10 mg/l
Toxic	city to algae	:	EC50 (Algae): 1 - 10 mg/l
Hydi	rocarbons, C9, aromatic	s:	
Τοχία	city to fish	:	LC50 (Fish): 9.22 mg/l Exposure time: 96 h
	city to daphnia and other ttic invertebrates	:	EC50 (Daphnia (water flea)): 6.14 mg/l Exposure time: 48 h
diac	etone alcohol:		
Toxic	city to fish	:	LC50 (Fish): 420 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	city to daphnia and other atic invertebrates	:	EC50 (Daphnia (water flea)): > 1,000 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Τοχία	city to algae	:	EC50 (Algae): > 1,000 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

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naftaleno	:		
Toxicity to	fish	:	LC50 (Fish): 0.1 - 1 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	daphnia and other vertebrates	:	EC50 (Daphnia (water flea)): 0.1 - 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to	algae	:	EC50 (Algae): 0.1 - 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
2-methox	y-1-methylethyl ace	eta	te:
Toxicity to		:	LC50 (Fish): 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	o daphnia and other vertebrates	:	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
1-methox	y-2-propanol:		
Toxicity to	fish	:	LC50 (Fish): 20,800 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
	daphnia and other vertebrates	:	EC50 (Daphnia (water flea)): 23,300 mg/l Exposure time: 48 h
Toxicity to	algae	:	EC50 (Algae): 10 mg/l Exposure time: 72 h
12.2 Persister	nce and degradabili	ty	
Compone	ents:		
•	bons, C10, aromatio	cs,	<1% naphthalene:
Biodegrac	lability	:	Biodegradation: 50 % Exposure time: 28 d
naftaleno	:		
Biodegrac	lability	:	Concentration: 100 mg/l Biodegradation: 2 % Exposure time: 28 d



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12.3 Bioaccumu	lative potential		
Component	ts:		
naftaleno:			
Bioaccumula	ation :	Bioconcentration factor (BCF): 168	
Partition coe octanol/wate		log Pow: 3.3	
12.4 Mobility in No data ava			
12.5 Results of I	PBT and vPvB asse	essment	
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 adve	rse effects		
Product: Additional ed information	cological :	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.	
SECTION 13: Disposal considerations			
13.1 Waste treat	ment methods		
Product	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management 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.
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SECTION 14: Transport information

IMDG	:	UN 1263
IATA (Cargo)	:	UN 1263
2 LIN proper chipping nome		

14.2 UN proper shipping name

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ADR IMDG IATA (Cargo)	:	PAINT RELATED MATERIAL PAINT RELATED MATERIAL Paint related material
14.3 Transport haz	zard class(es)	
ADR IMDG IATA (Cargo) 14.4 Packing grou	: : :	3 3 3
ADR Packing group Classification (:	III F1 30 3
IMDG Packing group Labels EmS Code		III 3 F-E, <u>S-E</u>
IATA (Cargo) Packing instruc aircraft) Packing instruc Packing group Labels	ction (LQ) :	366 Y344 III Flammable Liquids
14.5 Environmenta	al hazards	
ADR Environmental	ly hazardous :	no
IMDG Marine polluta	nt :	no
14.6 Special preca Not applicable		
14.7 Transport in bulk according to Annex II of Marpol 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	5,000 t	50,000 t

Other regulations:



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The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

SECTION 16: Other information

Full text of H-Statements	
EUH066 :	Repeated exposure may cause skin dryness or cracking.
H226 :	Flammable liquid and vapour.
H302 :	Harmful if swallowed.
H304 :	May be fatal if swallowed and enters airways.
H312 :	Harmful in contact with skin.
H319 :	Causes serious eye irritation.
H335 :	May cause respiratory irritation.
H336 :	May cause drowsiness or dizziness.
H351 :	Suspected of causing cancer.
H400 :	Very toxic to aquatic life.
H410 :	Very toxic to aquatic life with long lasting effects.
H411 :	Toxic to aquatic life with long lasting effects.
Full text of other abbreviations	
Acute Tox. :	Acute toxicity
Aquatic Acute :	Acute aquatic toxicity
Aquatic Chronic :	Chronic aquatic toxicity
Asp. Tox. :	Aspiration hazard
Carc. :	Carcinogenicity
Eye Irrit. :	Eye irritation
Flam. Liq. :	Flammable liquids
STOT SE :	Specific target organ toxicity - single exposure
2000/39/EC :	Europe. Commission Directive 2000/39/EC establishing a first
01/222/EEC	list of indicative occupational exposure limit values
91/322/EEC :	Europe. Commission Directive 91/322/EEC on establishing indicative limit values
GB EH40 :	UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA	Limit Value - eight hours
2000/39/EC / STEL :	Short term exposure limit
	Limit Value - eight hours
GB EH40 / TWA	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research

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on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very **Bioaccumulative**

Further information

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu compile the Safety Data Sheet

Classification of the mixt	ure:	Classification procedure:
Flam. Liq. 3	H226	Based on product data or assessment
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	Based on product data or assessment
Aquatic Chronic 3	H412	Calculation method

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.

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