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LO-1906 WS - RARALKYD LO-1906 WS

Safety data sheet

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

1.1. Product identifier	
Code: Product name	LO-1906 WS RARALKYD LO-1906 WS
1.2. Relevant identified uses of the substance or m	ixture and uses advised against
Intended use	Alkyd Resin / Decorative and Industrial Coatings
1.3. Details of the supplier of the safety data sheet	
Name Full address District and Country e-mail address of the competent person	RAR Resin & Chemical Industries JLT 11th Floor - One Lake Plaza, Jumeirah Lakes Towers 971 Dubai UAE Tel. 00971 4 4356517 Fax 00971 4 4356518
responsible for the Safety Data Sheet	technical@rarresin.com,info@rarresin.com
Product distribution by	Supplier/ Exporter : RAR Resin & Chemical Industries JLT
1.4. Emergency telephone number	
For urgent inquiries refer to	0097144356517, 00971555594056

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in Directives 67/548/EEC and 1999/45/EC (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

R phrases: 10-52/53

2.2. Label elements.

Hazard labelling pursuant to Directives 67/548/EEC and 1999/45/EC and subsequent amendments and supplements.

Warning symbols: None.

R10 R52/53	FLAMMABLE. HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
S43	IN CASE OF FIRE, USE USE FOAM, DRY CHEMICAL OR CARBON DIOXIDE(CO2) . DO NOT USE STRAIGHT STREAMS OF WATER.

2.3. Other hazards.

Information not available.



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	N 3. Comp	osition/in	formation on ingredients.	
I. Substa	nces.			
Informati	on not relevant.			
2. Mixture	s.			
Contains				
Identific	-	Conc. %.	Classification 67/548/EEC.	Classification 4272/2009 (CLD)
luentinc	auon.	CONC. %.	Classification 67/546/EEC.	Classification 1272/2008 (CLP).
Hydroca	rbons, C9-C12	, n-alkanes, is	soalkanes, cyclics, aromatics (2-25%)	
			R10, R66, R67, Xn R65, N R51/53	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336,
CAS.	-	0-9		
CAS. EC.	- 919-446-0	0-9		Aquatic Chronic 2 H411
	919-446-0	0-9		
EC. INDEX.	919-446-0			
EC. INDEX. Reg. no.	919-446-0 -	49-33		
EC. INDEX. Reg. no.	919-446-0 - 01-21194580 (MIXTURE OF	49-33	R10, Xn R20/21, Xi R38, Note C	Aquatic Chronic 2 H411 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332,
EC. INDEX. Reg. no. XYLENE	919-446-0 - 01-21194580 (MIXTURE OF	49-33 (ISOMERS)	R10, Xn R20/21, Xi R38, Note C	Aquatic Chronic 2 H411
EC. INDEX. Reg. no. XYLENE CAS. EC.	919-446-0 - 01-21194580 (MIXTURE OF 1330-20-7	49-33 I SOMERS) 1 - 1.5	R10, Xn R20/21, Xi R38, Note C	Aquatic Chronic 2 H411 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332,
EC. INDEX. Reg. no. XYLENE CAS. EC.	919-446-0 - 01-21194580 (MIXTURE OF 1330-20-7 215-535-7 601-022-00-9	49-33 I SOMERS) 1 - 1.5	R10, Xn R20/21, Xi R38, Note C	Aquatic Chronic 2 H411 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332,
EC. INDEX. Reg. no. XYLENE CAS. EC. INDEX.	919-446-0 - 01-21194580 (MIXTURE OF 1330-20-7 215-535-7 601-022-00-9 ENZENE	49-33 I SOMERS) 1 - 1.5	R10, Xn R20/21, Xi R38, Note C F R11, Xn R20	Aquatic Chronic 2 H411 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332,
EC. INDEX. Reg. no. XYLENE CAS. EC. INDEX. ETHYLB	919-446-0 - 01-21194580 (MIXTURE OF 1330-20-7 215-535-7 601-022-00-9 ENZENE	49-33 ISOMERS) 1 - 1.5		Aquatic Chronic 2 H411 Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Note C

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F + = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed. Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak. UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION



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SECTION 5. Firefighting measures. ... / >>

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations. SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

FOR LIQUID PRODUCTS:

Block the leakage if there is no hazard.

FOR SOLID PRODUCTS:

If there are no contraindications, spray powder with water to prevent the formation of dust. Avoid breathing vapours/mists/gases. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

FOR LIQUID PRODUCTS: Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

FOR SOLID PRODUCTS: Use spark-proof mechanical equipment to collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Éire OEL EU	EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended). Code of Practice Chemical Agent Regulations 2011. Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. ACGIH 2012
TLV-ACGIH	ACGIH 2012

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SECTION 8. Exposure controls/personal protection. .../>>

	Hydro	carbons, C9-0	512, n-alkanes	, isoalkanes, c	yclics, arom	atics (2-25%)		
Predicted no-effect con	centration - PN	IEC.						
Normal value for the	atmosphere					VND		
Normal value for the	food chain (seco	ondary poisoni	ng)			VND		
Normal value for the	terrestrial compa	artment				VND		
Normal value in fresh	water					VND		
Normal value for wate	er, intermittent re	elease				VND		
Normal value in marii	ne water					VND		
Normal value for fres	h water sedimer	nt				VND		
Normal value for mar	ine water sedim	ent				VND		
Normal value of STP	microorganisms	3				VND		
lealth - Derived no-effe	ct level - DNEL	/ DMEL						
	Effects on co	onsumers.			Effects on	workers		
Route of exposure	Acute local	Acute Chronic		Chronic	Acute	Acute	Chronic I	ocalChronic
		systemic	local	systemic	local	systemic		systemic
Oral.	VND	VND	VND	26	VND	VND	VND	VND
				mg/kg/d				
Inhalation.	VND	VND	VND	71	VND	VND	VND	330
				mg/m3				mg/m3
Skin.	VND	VND	VND	26	VND	VND	VND	44
				mg/kg/d				mg/kg/d

Hydrogenhane CO C12 n alkanes is alkanes available aromatics (2.25%)

XYLENE (MIXTURE OF ISOMERS)

Inreshold Limit Value.									
Туре	Country	TWA/8h		STEL/15	nin				
		mg/m3	ppm	mg/m3	ppm				
WEL	UK	220	50	441	100				
OEL	IRL	221	50	442	100	SKIN			
OEL	EU	221	50	442	100	SKIN			
TLV-ACGIH		434	100	651	150				

	ETHYLBENZENE								
Threshold Limit Va	Fhreshold Limit Value.								
Туре	Country	TWA/8h		STEL/15r	nin				
		mg/m3	ppm	mg/m3	ppm				
WEL	UK	441	100	552	125	SKIN			
OEL	IRL	442	100	884	200	SKIN			
OEL	EU	442	100	884	200	SKIN			
TLV-ACGIH		20	100		87				

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction. VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

TLV of solvent mixture: 525 mg/m3.

8.2. Exposure controls.

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As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category I (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in latex, PVC or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure. SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

RESPIRATORY PROTECTION

If the threshold value (if available) for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an A or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of respiratory tract protection equipment, such as masks like that indicated above, is necessary to reduce worker exposure in the absence of technical measures. The protection provided by masks is in any case limited.



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SECTION 8. Exposure controls/personal protection. />>

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

EYE PROTECTION

Use of protective airtight goggles (ref. standard EN 166) recommended.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

9.1. Information on basic physical and chemi	cai pro	perues.		
Appearance		dense li	quid	
Colour		yellowis	h	
Odour		characte	eristic of solvent	
Odour threshold.		Not ava	ilable.	
pH.		Not ava	ilable.	
Melting point / freezing point.		Not ava	ilable.	
Initial boiling point.	>	135	°C.	
Boiling range.		Not ava	ilable.	
Flash point.	>	30	°C.	
Evaporation Rate		0.13		
Flammability of solids and gases		Not ava	ilable.	
Lower inflammability limit.		0.6	% (V/V).	
Upper inflammability limit.		7	% (V/V).	
Lower explosive limit.		Not ava	ilable.	
Upper explosive limit.		Not ava	ilable.	
Vapour pressure.		20.25	mmHg	
Vapour density		>1 @ 10	01 kPa	
Relative density.		1.072	Kg/l	
Solubility		Not ava	ilable.	
Partition coefficient: n-octanol/water		Not ava	ilable.	
Auto-ignition temperature.	>	200	°C.	
Decomposition temperature.		Not ava	ilable.	
Viscosity		>Z6 (Ga	ardner Scale,25°C i	n70% WS)
Explosive properties		Not ava	ilable.	
Oxidising properties		Not ava	ilable.	
9.2. Other information.				
Solid content.		90.00 %)	
VOC (Directive 1999/13/EC) :		10.00 %	- 107.22	g/litre.
VOC (volatile carbon) :		9.04 %	- 96.97	g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.

ETHYLBENZENE: reacts violently with strong oxidising agents and attacks various types of plastics. Can form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.



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SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

ETHYLBENZENE: methane, styrene, hydrogen, ethane.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

Vapour concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anaesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

XYLENE (MIXTURE OF ISOMERS): has a toxic effect on the CNS (encephalopathies). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.

ETHYLBENZENE: like the benzene homologues, may exert an effect on the CNS with depression, narcosis, often preceded by dizziness and accompanied by headache. It is irritating to the skin, conjunctivae and respiratory apparatus.

Hydrocarbons, LD50 (Oral). LD50 (Dermal). LC50 (Inhalation).	C9-C12,	n-alkanes, > 5000 mg/kg > 4 ml/kg > 13.1 mg/l	isoalkanes,	cyclics,	aromatics	(2-25%)
XYLENE (MIXTURE OF IS LD50 (Oral). LD50 (Dermal). LC50 (Inhalation).	SOMERS)	3523 mg/kg Rat 4350 mg/kg Rabbit 26 mg/l/4h Rat				
ETHYLBENZENE LD50 (Oral). LD50 (Dermal). LC50 (Inhalation).		3500 mg/kg Rat 15354 mg/kg Rabbit 17.2 mg/l/4h Rat				
SECTION 12. Ecolog	gical information).				
This product is dangeron environment.	us for the environment	and the aquatic organisms	s. In the long term,	it may even ha	ave negative effects	s on aquatic
The information given is b	ased on data available f	or the material, the componer	nts of the material, ar	d similar material	S.	

12.1. Toxicity.

HYDROCARBONS, C9-C12, n-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)-->

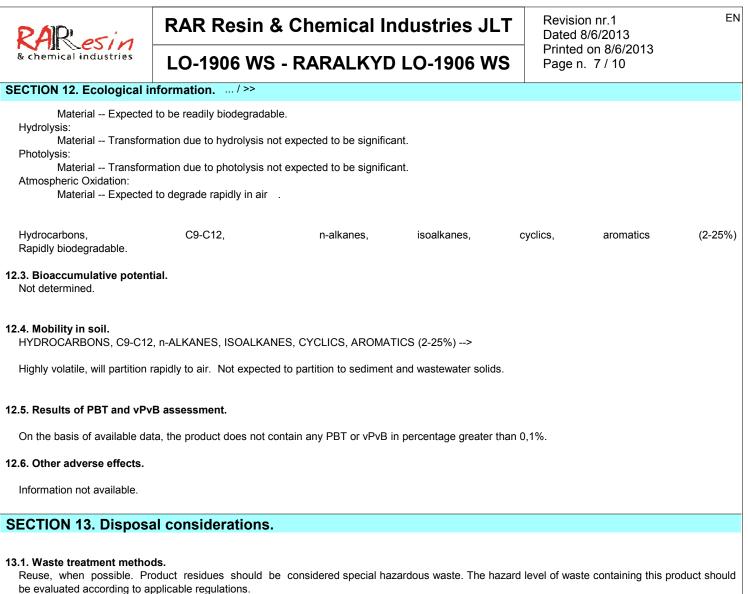
Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Hydrocarbons,	C9-C12,	n-alkanes,	isoalkanes,	cyclics,	aromatics	(2-25%)
LC50 (96h).		> 10 mg/l				
EC50 (48h).		> 10 mg/l				
IC50 (72h).		> 4.6 mg/l				
Chronic NOEC for Algae /	Aquatic Plants.	0.097 mg/l				

12.2. Persistence and degradability.

HYDROCARBONS, C9-C12, n-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)

Biodegradation:



Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.



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SECTION 14. Transport informat	ion/>>
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SECTION 14. Transport info	rmation/>>			
Road and rail transport:				
ADR/RID Class: Packing Group: Label: Nr. Kemler: Limited Quantity. Tunnel restriction code. Proper Shipping Name: Special Provision:	3 UN: III 3 30 5 L (D/E) RESIN SOLUTI 640E	1866 ION		
Carriage by sea (shipping):				
IMO Class: Packing Group: Label: EMS: Marine Pollutant. Proper Shipping Name: Transport by air:	3 UN: III 3 F-E , <u>S-</u> NO RESIN SOLUTI			
IATA: Packing Group: Label: Cargo:	3 UN: III 3	1866		
Packaging instructions: Pass.:	366	Maximum quantity:	220 L	
Packaging instructions: Special Instructions:	355 A3	Maximum quantity:	60 L	
Proper Shipping Name:	RESIN SOLUTI	ON		
5.1. Safety, health and environ Seveso category.	mental regulations/legis	lation specific for the subst	tance or mixture.	
Restrictions relating to the produc	ct or contained substances	pursuant to Annex XVII to EC F	Regulation 1907/2006.	
Product. Point. 3 - 4	40			
Substances in Candidate List (Ar None.	t. 59 REACH).			
Substances subject to authorisar None.	ion (Annex XIV REACH).			
Substances subject to exportatio None.	n reporting pursuant to (EC) Reg. 689/2008:		
<u>Substances subject to the Rotter</u> None.	dam Convention:			
Substances subject to the Stockh None.	nolm Convention:			
Healthcare controls. Information not available.				
5.2. Chemical safety assessme	ent.			
	thes been uncered for	the mixture and the substance	too it contains	



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SECTION 15. Regulatory information. />>

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R10	FLAMMABLE.
R11	HIGHLY FLAMMABLE.
R20	HARMFUL BY INHALATION.
R20/21	HARMFUL BY INHALATION AND IN CONTACT WITH SKIN.
R38	IRRITATING TO SKIN.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC
	ENVIRONMENT.
R52/53	HARMFUL 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.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as Reach Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.



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SECTION 16. Other information. ... / >>

GENERAL BIBLIOGRAPHY

- 1. Directive 1999/45/EC and following amendments
- 2. Directive 67/548/EEC and following amendments and adjustments
- 3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 6. Regulation (EC) 453/2010 of the European Parliament
- 7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
- 8. The Merck Index. 10th Edition
- 9. Handling Chemical Safety
- 10. Niosh Registry of Toxic Effects of Chemical Substances
- 11. INRS Fiche Toxicologique (toxicological sheet)
- 12. Patty Industrial Hygiene and Toxicology
- 13. N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- 14. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.