according to Regulation (EC) No. 1907/2006

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KRONOX 3100

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

1.1 Product identifier

Trade name : KRONOX 3100

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

Use of the : Clear coating

Substance/Mixture

Recommended restrictions

on use

For use in industrial installations or professional treatment

only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

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

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person

responsible for the SDS

: msds@roberlo.com

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

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

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

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

effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :





Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary 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:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label:

Derivative of benzotriazol Reaction product of pentamethyl-piperidyl sebacate 2-hydroxyethyl methacrylate isobutyl methacrylate

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. Index-No. Registration number	Classification	Concentration (% w/w)
heptan-2-one	110-43-0 203-767-1 606-024-00-3	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 4; H332	>= 10 - < 20

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n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 10 - < 20	
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2 01-2119475112-47	Acute Tox. 4; H302 Acute Tox. 4; H312	>= 1 - < 10	
Derivative of benzotriazol	104810-47-1 400-830-7 607-176-00-3 01-0000015075-76- 0017	Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 1 - < 2.5	
Reaction product of pentamethyl- piperidyl sebacate	1065336-91-5 915-687-0 01-2119491304-40	Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1	
2-hydroxyethyl methacrylate	868-77-9 212-782-2 607-124-00-X 01-2119490169-29	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 0.1 - < 1	
isobutyl methacrylate	97-86-9 202-613-0 607-113-00-X 01-2119488331-38	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Acute 1; H400	>= 0.1 - < 0.25	
Substances with a workplace exposure limit :				
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226	>= 1 - < 10	

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.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

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.

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Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms Inhalation may provoke the following symptoms:

> Headache Vertigo Fatigue Weakness

Skin contact may provoke the following symptoms:

Redness Pain

Ingestion may provoke the following symptoms:

Abdominal pain

Nausea Vomitina Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

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

courses.

Hazardous combustion

products

: No hazardous combustion products are known

5.3 Advice for firefighters

for firefighters

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

Further information Collect contaminated fire extinguishing water separately. This

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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 : 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.

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 against

fire and explosion

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.

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: Wash hands before breaks and at the end of workday. Hygiene measures

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

No smoking. Keep container tightly closed in a dry and wellventilated 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	
heptan-2-one	110-43-0	TWA	50 ppm 238 mg/m3	2000/39/EC	
Further information	Identifies the	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 475 mg/m3	2000/39/EC	
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative	
		STEL	100 ppm 475 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.				
		TWA	50 ppm 237 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.				
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	2000/39/EC	

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			550 mg/m3	I	
Further information	Identifies the	s the possibility of significant uptake through the skin, Indicative			
T GITTION INTONNIGATION	radriance and	TWA 50 ppm GB EH40			
			274 mg/m3	05 20	
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.				
		STEL	100 ppm	GB EH40	
			548 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.				
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			ne assigned substances are t		
	there are con-		sorption will lead to systemic	,	
F 0 ' C 0'	0 1 1	STEL	50 ppm	GB EH40	
Further information			ne assigned substances are t		
hantan 2 ana			sorption will lead to systemic	2000/39/EC	
heptan-2-one	110-43-0	TWA	50 ppm	2000/39/EC	
Further information	238 mg/m3 Identifies the possibility of significant uptake through the skin, Indicative				
ruitilei iiiloiiilatioii	identifies the	STEL	100 ppm	2000/39/EC	
		SIEL	475 mg/m3	2000/39/EC	
Further information	Identifies the possibility of significant uptake through the skin, Indicative				
T dittior information	identifies the	STEL	100 ppm	GB EH40	
		OTEL	475 mg/m3	OB LITTO	
Further information	Can be absor	bed through skin. Th		hose for which	
	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	GB EH40	
			237 mg/m3		
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which	
	there are con-	cerns that dermal ab	sorption will lead to systemic	toxicity.	
n-butyl acetate	123-86-4	TWA	150 ppm	GB EH40	
			724 mg/m3		
		STEL	200 ppm	GB EH40	
			966 mg/m3		
2-methoxy-1-	108-65-6	TWA	50 ppm	2000/39/EC	
methylethyl			275 mg/m3		
acetate					
Further information	Identifies the	, ,	ant uptake through the skin, I		
		STEL	100 ppm	2000/39/EC	
C. with an informati		a a a cilatita e e e e e e e e e e e e	550 mg/m3		
Further information	identifies the		ant uptake through the skin, I		
		TWA	50 ppm	GB EH40	
Eurthor information	Con ho share	had through alds. Th	274 mg/m3	hooo for which	
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.				
	ulere are com	STEL	100 ppm	GB EH40	

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			548 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.				
2-butoxyethyl	112-07-2	TWA	20 ppm	2000/39/EC	
acetate			133 mg/m3		
Further information	Identifies the	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	50 ppm	2000/39/EC	
			333 mg/m3		
Further information	Identifies the	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	20 ppm	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.				
		STEL	50 ppm	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.				
acetone	67-64-1	TWA	500 ppm	2000/39/EC	
			1,210 mg/m3		
Further information	Indicative				
		TWA	500 ppm	GB EH40	
			1,210 mg/m3		
		STEL	1,500 ppm	GB EH40	
			3,620 mg/m3		

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

Substance name	End Use	Exposure routes	Potential health effects	Value
heptan-2-one	Workers	Inhalation	Long-term systemic effects	394.25 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
2-butoxyethyl acetate	Workers	Inhalation	Long-term systemic effects	133 mg/m3

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance viscous liquid

Colour colourless

Odour : characteristic

pН Not applicable

Melting point/range not determined

Boiling point/boiling range : not determined

Flash point : 23 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit / Upper

flammability limit

: not determined

Lower explosion limit / Lower : not determined

flammability limit

Vapour pressure : not determined

0.978 g/cm3 (20 °C) Density

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 296 mPa.s (20 °C)

Method: ISO 2555

 $> 20.5 \text{ mm}2/\text{s} (40 ^{\circ}\text{C})$ Viscosity, kinematic

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

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

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Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

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

Method: Calculation method

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

Exposure time: 4 h

Test atmosphere: vapour Method: Calculation method

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

Method: Calculation method

Components:

heptan-2-one:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Method: Converted acute toxicity point estimate

Acute dermal toxicity : LD50 (Rabbit): 12,600 mg/kg

Method: OECD Test Guideline 402

n-butyl acetate:

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

Method: OECD Test Guideline 401

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

Exposure time: 4 h

Test atmosphere: vapour

Method: OECD Test Guideline 403

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

Method: OECD Test Guideline 402

2-butoxyethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 1,880 mg/kg

Method: OECD Test Guideline 401

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

Exposure time: 4 h

Test atmosphere: vapour

Method: OECD Test Guideline 403

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

Method: Converted acute toxicity point estimate

Reaction product of pentamethyl-piperidyl sebacate:

Acute oral toxicity : LD50 Oral (Rat): 3,230 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

2-methoxy-1-methylethyl acetate:

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

Method: OECD Test Guideline 401

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

Exposure time: 4 h Test atmosphere: gas

Method: OECD Test Guideline 403

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

Method: OECD Test Guideline 402

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.

Respiratory or skin sensitisation

Product:

Result: May cause sensitisation by skin contact.

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Germ cell mutagenicity

Product:

Germ cell mutagenicity-

Assessment

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

Carcinogenicity

Product:

Carcinogenicity - : Ba

Assessment

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

Reproductive toxicity

Product:

Reproductive toxicity -

Assessment

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

STOT - single exposure

Product:

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

STOT - repeated exposure

Product:

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

Aspiration toxicity

Product:

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

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

Method: OECD Test Guideline 203

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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

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

Derivative of benzotriazol:

Toxicity to fish : LC50 (Fish): 2.8 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 4 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Algae): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC10 (Algae): 10 mg/l Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

NOEC: 0.78 mg/l Exposure time: 21 d

Species: Daphnia (water flea)

Reaction product of pentamethyl-piperidyl sebacate:

Toxicity to fish : LC50 (Fish): 0.9 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 20 mg/l

Exposure time: 24 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1.68 mg/l

Exposure time: 72 h

according to Regulation (EC) No. 1907/2006

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Method: OECD Test Guideline 201

2-methoxy-1-methylethyl acetate:

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

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

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

Exposure time: 48 h

Method: OECD Test Guideline 202

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

Exposure time: 72 h

Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

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

0.1% or higher...

12.6 Other adverse effects

Product:

Environmental fate and

pathways

: No data available

Additional ecological

information

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 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.

according to Regulation (EC) No. 1907/2006



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Contaminated packaging : Empty remaining contents.

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

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

SECTION 14: Transport information

14.1 UN number

 ADR
 : 1263

 IMDG
 : UN 1263

 IATA (Cargo)
 : UN 1263

14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
IATA (Cargo) : Paint

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA (Cargo)
 : 3

14.4 Packing group

ADR

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

IMDG

Packing group : III
Labels : 3

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

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

according to Regulation (EC) No. 1907/2006

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14.6 Special precautions for user

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

Volatile organic compounds : 390 g/l

Directive 2004/42/EC : Topcoat (420 g/l)

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

H226 : Flammable liquid and vapour.

H302 : Harmful if swallowed.

H312 : Harmful in contact with skin.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.
H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

H335 : May cause respiratory irritation. H336 : May cause drowsiness or dizziness.

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

Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

according to Regulation (EC) No. 1907/2006

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KRONOX 3100

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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 / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit

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 mixture: Classification procedure:

Flam. Liq. 3 H226 Based on product data or assessment

Skin Sens. 1 H317 Calculation method Aquatic Chronic 3 H412 Calculation method

according to Regulation (EC) No. 1907/2006



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GB / EN