

# SAFETY DATA SHEET



## MasterMix HS Clearcoat Hardener

Version  
2.2

Revision Date:  
09.02.2024

SDS Number:  
MATOPL471554  
ZA/EN

Date of last issue: 31.01.2024  
Date of first issue: 23.10.2023

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

#### 1.1 Product identifier

Trade name : MasterMix HS Clearcoat Hardener

Product code : 47155413  
PLA000015-0026

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

Use of the Sub-stance/Mixture : Coatings and paints, thinners, paint removers

Recommended restrictions on use : Reserved for industrial and professional use.

#### 1.3 Details of the supplier of the safety data sheet

Company : Kansai Plascon  
Frederick Cooper Drive 10  
Factoria, Krugersdorp  
South Africa  
www.plascon.com

Telephone Company : 2711 951 4500  
2783 991 5782

Telefax Company : 2711 955 2841

Responsible/issuing person : 2711 951 4500  
2783 991 5782  
mmundondo@kansaiplascon.co.za

#### 1.4 Emergency telephone number

Emergency Number: 112; Ambulance: 10177

### 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.

Specific target organ toxicity - single exposure, Category 3, Central nervous H336: May cause drowsiness or dizziness.

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system

Specific target organ toxicity - single exposure, Category 3, Respiratory system

H335: May cause respiratory irritation.

Long-term (chronic) aquatic hazard, Category 3

H412: Harmful to aquatic life with long lasting effects.

## 2.2 Label elements

## Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

: Warning

Hazard statements

:	H226 H317 H335 H336 H412	Flammable liquid and vapour. May cause an allergic skin reaction. May cause respiratory irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.
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Supplemental Hazard Statements

:	EUH066	Repeated exposure may cause skin dryness or cracking.
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Precautionary statements

:	<b>Prevention:</b>	
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P261	Avoid breathing mist or vapours.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
	<b>Response:</b>	
	P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
	P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

n-butyl acetate  
Hexamethylene-di-isocyanate, polymer  
Hydrocarbons, C9 aromatics  
reaction mixture of ethylbenzene, m-xylene and p-xylene

## Additional Labelling

EUH204 Contains isocyanates. May produce an allergic reaction.

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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****Components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
n-butyl acetate	1330-20-7 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 30 - < 50
Hexamethylene diisocyanate, oligomers	500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system)	>= 30 - < 50
2-butoxyethyl acetate	203-933-3 607-038-00-2 01-2119475112-47	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312	>= 1 - < 10
Hydrocarbons, C9 aromatics	Not Assigned 918-668-5 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 2,5 - < 10
reaction mixture of ethylbenzene, m-xylene and p-xylene	Not Assigned 905-562-9 01-2119555267-33	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 Asp. Tox. 1; H304	>= 1 - < 10

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2-methoxy-1-methylethyl acetate	203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
solvent naphtha (petroleum), light aromatic	265-199-0 649-356-00-4 01-2119455851-35	Flam. Liq. 3; H226 STOT SE 3; H336 (Central nervous system) STOT SE 3; H335 (Respiratory system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 2,5

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 : Consult a physician after significant exposure.  
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.  
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 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.  
Take victim immediately to hospital.

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

- Risks : May cause an allergic skin reaction.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
Repeated exposure may cause skin dryness or cracking.



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

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not 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

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

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
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

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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

See sections: 7, 8, 11, 12 and 13.

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## 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.  
Avoid contact with skin and eyes.  
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.  
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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.

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 storage, including 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.

Further information on storage stability : No decomposition if stored and applied as directed.

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### 7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

Consult the technical guidelines for the use of this substance/mixture.

## 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 OEL-RL	100 ppm	ZA OEL
		Further information: Recommended Limit		
		STEL OEL-RL	300 ppm	ZA OEL
		Further information: Recommended Limit		
		STEL	150 ppm 723 mg/m <sup>3</sup>	2019/1831/EU
		TWA	50 ppm 241 mg/m <sup>3</sup>	2019/1831/EU
2-butoxyethyl acetate	112-07-2	TWA	20 ppm 133 mg/m <sup>3</sup>	2000/39/EC
		STEL	50 ppm 333 mg/m <sup>3</sup>	2000/39/EC
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	STEL OEL-RL	300 ppm	ZA OEL
		Further information: Absorption through the skin, Recommended Limit		
		TWA OEL-RL	200 ppm	ZA OEL
		Further information: Absorption through the skin, Recommended Limit		
		TWA	50 ppm 221 mg/m <sup>3</sup>	2000/39/EC
		STEL	100 ppm 442 mg/m <sup>3</sup>	2000/39/EC
2-methoxy-1-methylethyl acetate	108-65-6	STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
		TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC

#### Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
reaction mixture of ethylbenzene, m-xylene and p-xylene	1330-20-7	Methylhippuric acid: 1.5 g/g creatinine (Urine)	End of shift	ZA BEI

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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
n-butyl acetate	Workers	Inhalation	Acute systemic effects	600 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	600 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	48 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	300 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	12 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	35,7 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	3,4 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	6 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	2 mg/kg bw/day
	Consumers	Oral	Acute systemic effects	2 mg/kg bw/day
Hexamethylene-diisocyanate, polymer	Workers	Dermal	Long-term systemic effects	7 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	11 mg/kg bw/day
2-butoxyethyl acetate	Workers	Inhalation	Long-term local effects	0,5 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	1 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	333 mg/m <sup>3</sup>
	Consumers	Oral	Long-term systemic effects	86 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	169 mg/kg bw/day
	Workers	Dermal	Acute systemic effects	120 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	102 mg/kg bw/day
	Consumers	Dermal	Acute systemic effects	72 mg/kg bw/day
Hydrocarbons, C9 aromatics	Consumers	Oral	Acute systemic effects	36 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	150 mg/m <sup>3</sup>
	Workers	Oral	Long-term systemic effects	150 mg/m <sup>3</sup>



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	Consumers	Inhalation	Long-term exposure	32 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	11 mg/kg bw/day
reaction mixture of ethylbenzene, m-xylene and p-xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	65,3 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	442 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	289 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute systemic effects	260 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	221 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	14,8 mg/m <sup>3</sup>
	Consumers	Inhalation	Acute local effects	260 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	108 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	16 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	180 mg/kg bw/day
2-methoxy-1-methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m <sup>3</sup>
	Workers	Inhalation	Acute local effects	550 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	33 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	33 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	796 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects	320 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	36 mg/kg bw/day
Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified	Workers	Inhalation	Long-term systemic effects	150 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	32 mg/m <sup>3</sup>
	Consumers	Dermal	Long-term systemic effects	11 mg/kg bw/day
	Workers	Dermal	Long-term systemic effects	25 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	11 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
n-butyl acetate	Soil	0,0903 mg/kg dry weight (d.w.)
	Marine water	0,018 mg/l
	Fresh water	0,18 mg/l
	Marine sediment	0,0981 mg/kg dry weight (d.w.)
	Fresh water sediment	0,981 mg/kg dry weight (d.w.)
	Sewage treatment plant	35,6 mg/l
	Intermittent use/release	0,36 mg/l
Hexamethylene-di-isocyanate, polymer	Soil	505 mg/kg dry weight (d.w.)
	Marine water	0,01 mg/l
	Fresh water	0,1 mg/l
	Marine sediment	253 mg/kg dry weight (d.w.)
	Fresh water sediment	2530 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Intermittent use/release	1 mg/l
2-butoxyethyl acetate	Soil	0,415 mg/kg dry weight (d.w.)
	Marine water	0,0304 mg/l
	Fresh water	0,304 mg/l
	Marine sediment	0,203 mg/kg dry weight (d.w.)
	Fresh water sediment	2,03 mg/kg dry weight (d.w.)
	Sewage treatment plant	90 mg/l
	Intermittent use/release	0,56 mg/l
reaction mixture of ethylbenzene, m-xylene and p-xylene	Soil	2,31 mg/kg dry weight (d.w.)
	Marine water	0,327 mg/l
	Fresh water	0,327 mg/l
	Marine sediment	12,46 mg/kg dry weight (d.w.)
	Fresh water sediment	12,46 mg/kg dry weight (d.w.)
	Sewage treatment plant	6,58 mg/l
	Intermittent use/release	0,327 mg/l
2-methoxy-1-methylethyl acetate	Soil	0,29 mg/kg dry weight (d.w.)
	Marine water	0,0635 mg/l
	Fresh water	0,635 mg/l
	Marine sediment	0,329 mg/kg dry weight (d.w.)
	Fresh water sediment	3,29 mg/kg dry weight (d.w.)

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	Sewage treatment plant	100 mg/l
	Intermittent use/release	0,00635 mg/l

### 8.2 Exposure controls

#### Personal protective equipment

Eye/face protection : Equipment should conform to EN 166  
Eye wash bottle with pure water  
Tightly fitting safety goggles

Hand protection

Gloves : Nitrile rubber (> 0,1 mm; < 60 min); ISO EN374 |  
butyl-rubber (> 0,6 mm; < 240 min); ISO EN374 |  
Viton® (> 0,6 mm; < 240 min); ISO EN374 |  
PE laminate (> 0,1 mm; < 240 min); ISO EN374 |

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.  
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

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 : Wear a full face respirator conforming to EN136 with Type A/P2 filter or better.  
Self-contained closed-circuit breathing apparatus compressed (EN 145)  
In the case of aerosol and mist formation use an approved respirator filter (EN 141).

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : solvent-like

Odour Threshold : No data available

pH : Not applicable

Melting point/freezing point : -78,0 °C

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Boiling point/boiling range	:	(calculation method (principal components, lowest value)) 126 °C (calculation method (principal components, lowest value))
Flash point	:	39 °C
Flammability (solid, gas)	:	Static-accumulating flammable liquid., Combustible Solids
Upper explosion limit / Upper flammability limit	:	8,4 %(V) (calculation method (principal components, highest value))
Lower explosion limit / Lower flammability limit	:	1,0 %(V) (calculation method (principal components, highest value))
Relative vapour density	:	5,5 (calculation method (principal components, highest value))  (Air = 1.0)
Relative density	:	No data available
Density	:	0,971 g/cm <sup>3</sup>
Solubility(ies)	:	
Water solubility	:	partly miscible
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	log Pow: < 4 (calculation method (principal components, highest value))
Ignition temperature	:	280 °C (calculation method (principal components, highest value))
Decomposition temperature	:	No decomposition if stored and applied as directed. Hazardous decomposition products formed under fire conditions.
Viscosity	:	
Viscosity, kinematic	:	> 20,5 mm <sup>2</sup> /s (40 °C)
Explosive properties	:	Not applicable
Oxidizing properties	:	Sustains combustion

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### 9.2 Other information

No data available  
VOC

: (Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control))  
66,75 %

## 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.

### 10.5 Incompatible materials

Materials to avoid : Incompatible with strong acids and bases.

### 10.6 Hazardous decomposition products

Adequate ventilation is required.  
Heating can release vapours which can be ignited.  
Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Not classified based on available information.

#### 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

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Method: Calculation method

**Components:****n-butyl acetate:**

Acute oral toxicity : LD50 Oral (Rat):  $\geq 10.760$  mg/kg

Acute dermal toxicity : LD50 (Rabbit):  $\geq 5.000$  mg/kg

**Hexamethylene-di-isocyanate, polymer:**

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

**2-butoxyethyl acetate:**

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

LD50 Oral (Rat):  $\geq 2.400$  mg/kg

Acute inhalation toxicity : LC50 (Rat):  $\geq 50$  mg/l  
Exposure time: 2 h  
Test atmosphere: vapour

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact with skin.

LD50 (Rabbit):  $\geq 1.500$  mg/kg

**Hydrocarbons, C9 aromatics:**

Acute dermal toxicity : LD50 (Rabbit):  $> 3.160$  mg/kg

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Acute oral toxicity : LD50 Oral (Rat):  $\geq 8.700$  mg/kg

Acute inhalation toxicity : LC50 (Rat): 27,14 mg/l  
Test atmosphere: vapour

Acute dermal toxicity : Assessment: The component/mixture is moderately toxic after single contact with skin.

**2-methoxy-1-methylethyl acetate:**

Acute oral toxicity : LD50 Oral (Rat):  $> > 2.000$  mg/kg

Acute inhalation toxicity : LC50 (Rat):  $> 5$  mg/l  
Test atmosphere: vapour

LC0 (Rat): 2000 ppm  
Exposure time: 3 h

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Acute dermal toxicity : LD50 (Rabbit): > > 2.000 mg/kg

**Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

**Skin corrosion/irritation**

Repeated exposure may cause skin dryness or cracking.

**Product:**

Remarks : May cause skin irritation and/or dermatitis.

**Components:**

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Result : irritating

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

**Components:**

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Result : Eye irritation

**Respiratory or skin sensitisation**

**Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Product:**

Remarks : Causes sensitisation.

**Components:**

**Hexamethylene-di-isocyanate, polymer:**



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Result : Probability or evidence of skin sensitisation in humans

### **Germ cell mutagenicity**

Not classified based on available information.

#### **Components:**

#### **Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

Germ cell mutagenicity- Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

### **Carcinogenicity**

Not classified based on available information.

#### **Components:**

#### **Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

Carcinogenicity - Assessment : Classified based on benzene content < 0.1% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note P)

### **Reproductive toxicity**

Not classified based on available information.

### **STOT - single exposure**

May cause respiratory irritation.  
May cause drowsiness or dizziness.

#### **Components:**

#### **n-butyl acetate:**

Assessment : May cause drowsiness or dizziness.

#### **Hexamethylene-di-isocyanate, polymer:**

Assessment : May cause respiratory irritation.

#### **Hydrocarbons, C9 aromatics:**

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

#### **reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Assessment : May cause respiratory irritation.

#### **2-methoxy-1-methylethyl acetate:**

Assessment : May cause drowsiness or dizziness.





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**Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

Assessment : May cause drowsiness or dizziness.

Assessment : May cause respiratory irritation.

**STOT - repeated exposure**

Not classified based on available information.

**Components:**

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Assessment : May cause damage to organs through prolonged or repeated exposure.

**Aspiration toxicity**

Not classified based on available information.

**Components:**

**Hydrocarbons, C9 aromatics:**

May be fatal if swallowed and enters airways.

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

May be fatal if swallowed and enters airways.

**Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

May be fatal if swallowed and enters airways.

**Further information**

**Product:**

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

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**SECTION 12: Ecological information**

**12.1 Toxicity**

**Components:**

**n-butyl acetate:**

Toxicity to algae/aquatic plants : NOEC (Desmodesmus subspicatus (green algae)): > 200 mg/l

EC50 (Desmodesmus subspicatus (green algae)): >= 647,7

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Exposure time: 72 hToxicity to microorganisms : IC50 (Tetrahymena pyriformis): 356 mg/l  
Exposure time: 40 h**2-butoxyethyl acetate:**Toxicity to fish : LC50 (Fish):  $\geq$  31 mg/l  
Exposure time: 96 hToxicity to daphnia and other : LC50 (Daphnia (water flea)):  $\geq$  142,5 mg/l  
aquatic invertebrates Exposure time: 48 hToxicity to microorganisms : EC50 (Bacteria):  $\geq$  2.800 mg/l**Hydrocarbons, C9 aromatics:**Toxicity to fish : LC50 (Fish):  $\geq$  9,2 mg/l  
Exposure time: 96 hToxicity to daphnia and other : EC50 (Daphnia (water flea)):  $\geq$  3,2 mg/l  
aquatic invertebrates Exposure time: 48 h**Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**Toxicity to fish : LC50 (Fish):  $\geq$  1 - 10 mg/lToxicity to daphnia and other : LC50 (Daphnia (water flea)):  $\geq$  1 - 10 mg/l  
aquatic invertebratesToxicity to microorganisms : EC50 (Bacteria):  $\geq$  1 - 100 mg/l**2-methoxy-1-methylethyl acetate:**Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l  
Exposure time: 96 hNOEC : 100 mg/l  
Exposure time: 96 hToxicity to daphnia and other : LC50 : 408 mg/l  
aquatic invertebrates Exposure time: 48 hToxicity to fish (Chronic tox- : EC10: 47,5 mg/l  
icity)**Solvent naphtha (petroleum), light arom.; Low boiling point naphtha -unspecified:**

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Toxicity to fish : LC50 (Fish): > 1 - 10 mg/l

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia (water flea)): > 1 - 10 mg/l

Toxicity to microorganisms : EC50 (Bacteria): > 1 - 10 mg/l

### Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

### Components:

#### **n-butyl acetate:**

Biodegradability : Result: Biodegradable  
Biodegradation: 83 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

Stability in water : Degradation half life: 78 d  
pH: 8  
Hydrolyses slowly.

Photodegradation : Decomposes rapidly in contact with light.

#### **2-butoxyethyl acetate:**

Biodegradability : Result: Biodegradable

#### **reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Biodegradability : Readily biodegradable.

Photodegradation : Decomposes rapidly in contact with light.

#### **2-methoxy-1-methylethyl acetate:**

Biodegradability : Readily biodegradable.

## 12.3 Bioaccumulative potential

### Components:

#### **n-butyl acetate:**

Bioaccumulation : Bioconcentration factor (BCF): 15  
Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 1,81

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**2-butoxyethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 1,51

**Hydrocarbons, C9 aromatics:**

Partition coefficient: n-octanol/water : log Pow: < 4

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Bioaccumulation : Bioconcentration factor (BCF): 25,9  
Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2,77 - 3,15

**2-methoxy-1-methylethyl acetate:**

Partition coefficient: n-octanol/water : log Pow: 1,2 (20 °C)  
pH: 6,8

**12.4 Mobility in soil****Components:****Hydrocarbons, C9 aromatics:**

Mobility : Medium: Air  
Content: 92,9 %  
: Medium: Water  
Content: 3,5 %  
: Medium: Soil  
Content: 1,9 %  
: Medium: Sediment  
Content: 1,8 %  
Distribution among environmental compartments : Koc: 1,71 - 14,70  
Mobile in soils

The product is insoluble and floats on water.

**reaction mixture of ethylbenzene, m-xylene and p-xylene:**

Distribution among environmental compartments : Koc: 537, log Koc: 2,73  
Moderately mobile in soils  
The product evaporates from soil.

Stability in soil : Dissipation time: 23 d  
Percentage dissipation: 50 % (DT50)



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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:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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.

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## 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.

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## SECTION 14: Transport information

### 14.1 UN number

UNRTDG : UN 1263  
IMDG : UN 1263  
IATA : UN 1263  
SANS 10228 : UN 1263

### 14.2 UN proper shipping name

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**UNRTDG** : PAINT  
**IMDG** : PAINT  
**IATA** : Paint  
**SANS 10228** : PAINT

### 14.3 Transport hazard class(es)

	Class	Subsidiary risks
<b>UNRTDG</b>	: 3	
<b>IMDG</b>	: 3	
<b>IATA</b>	: 3	
<b>SANS 10228</b>	: 3	

### 14.4 Packing group

**UNRTDG**  
Packing group : III  
Labels : 3

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

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 366  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

**IATA (Passenger)**  
Packing instruction (passenger aircraft) : 355  
Packing instruction (LQ) : Y344  
Packing group : III  
Labels : Flammable Liquids

**SANS 10228**  
Packing group : III  
Labels : 3

### 14.5 Environmental hazards

**UNRTDG**  
Environmentally hazardous : no

**IMDG**  
Marine pollutant : no

**SANS 10228**  
Environmentally hazardous : no

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The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**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****15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

**SECTION 16: Other information****Full text of H-Statements**

H226	: Flammable liquid and vapour.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
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.
H373	: May cause damage to organs through prolonged or repeated exposure.
H411	: Toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox.	: Acute toxicity
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
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
2019/1831/EU	: Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values
ZA BEI	: South Africa. The Regulations for Hazardous Chemical

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ZA OEL : Agents, Biological Exposure Indices  
South Africa. The Regulations for Hazardous Chemical Agents, Occupational Exposure Limits  
2000/39/EC / TWA : Limit Value - eight hours  
2000/39/EC / STEL : Short term exposure limit  
2019/1831/EU / TWA : Limit Value - eight hours  
2019/1831/EU / STEL : Short term exposure limit  
ZA OEL / TWA OEL-RL : Long term occupational exposure limits - recommended limit  
ZA OEL / STEL OEL-RL : Short term occupational exposure limits - recommended limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Flam. Liq. 3      H226  
Skin Sens. 1      H317  
STOT SE 3      H336  
STOT SE 3      H335

#### Classification procedure:

Based on product data or assessment  
Calculation method  
Calculation method  
Calculation method



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Aquatic Chronic 3

H412

Calculation method

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