

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

Hardener for Rapid Air Clear Coat

**Product no.**

7-336,337-xxxx

**REACH registration number**

Not applicable

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

**Relevant identified uses of the substance or mixture**

Bodywork protector treatment. Only for professional use.

**Uses advised against**

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The full text of any mentioned and identified use categories are given in section 16

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

**Company and address**

August Handel GmbH  
Heinrich-Hertz-Str. 3b  
DE-14532 Kleinmachnow b. Berlin  
Germany  
Phone: +49 30 217333 00

**Contact person**

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**E-mail**

info@augusthandel.com

**SDS date**

2017-06-08

**SDS Version**

1.0

### 1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Flam. Liq. 3; H226

Skin Sens. 1; H317

STOT SE 3; H336

See full text of H-phrases in section 2.2.

### 2.2. Label elements

**Hazard pictogram(s)**



**Signal word**

Warning

**Hazard statement(s)**

Flammable liquid and vapour. (H226)

May cause an allergic skin reaction. (H317)

May cause drowsiness or dizziness. (H336)

### Safety statement(s)

General	If medical advice is needed, have product container or label at hand. (P101). Keep out of reach of children. (P102).
Prevention	Wear protective gloves/eye protection. (P280).
Response	In case of fire: Use alcohol-resistant foam/carbonic acid/powder/water mist/carbon dioxide/dry sand to extinguish. (P370+P378). Call a POISON CENTER/doctor if you feel unwell. (P312).
Storage	Store in a well-ventilated place. Keep cool. (P403+P235).
Disposal	Dispose of contents/container to an approved waste disposal plant. (P501).

### Identity of the substances primarily responsible for the major health hazards

HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER, n-butyl acetate , 4-isocyanatosulphonyltoluene tosyl isocyanate

### 2.3. Other hazards

This product contains an organic solvent. Repeated or prolonged exposure to organic solvents may result in adverse effects to the nervous system and internal organs such as liver and kidneys.

### Additional labelling

Do not use in paint spraying equipment.

### Additional warnings

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### VOC

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## SECTION 3: Composition/information on ingredients

### 3.1/3.2. Substances/Mixtures

NAME:	n-butyl acetate
IDENTIFICATION NOS.:	CAS-no: 123-86-4 EC-no: 204-658-1 Index-no: 607-025-00-1
CONTENT:	40-60%%
CLP CLASSIFICATION:	Flam. Liq. 3, STOT SE 3 H226, H336, EUH066
NOTE:	S

NAME:	HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER
IDENTIFICATION NOS.:	CAS-no: 28182-81-2 EC-no: 500-060-2
CONTENT:	40-60%%
CLP CLASSIFICATION:	Acute Tox. 4, Skin Sens. 1, STOT SE 3 H335, H317, H335

NAME:	2-methoxy-1-methylethyl acetate
IDENTIFICATION NOS.:	CAS-no: 108-65-6 EC-no: 203-603-9 Index-no: 607-195-00-7
CONTENT:	15-30%%
CLP CLASSIFICATION:	Flam. Liq. 3 H226
NOTE:	SL

NAME:	2-butoxyethyl acetate butylglycol acetate
IDENTIFICATION NOS.:	CAS-no: 112-07-2 EC-no: 203-933-3 Index-no: 607-038-00-2
CONTENT:	1-3%%
CLP CLASSIFICATION:	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4 H302, H312, H332
NOTE:	SL

NAME:	4-isocyanatosulphonyltoluene tosyl isocyanate
IDENTIFICATION NOS.:	CAS-no: 4083-64-1 EC-no: 223-810-8 Index-no: 615-012-00-7
CONTENT:	0-0,5%%
CLP CLASSIFICATION:	STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1 H315, H319, H334, H335

(\*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.  
S = Organic solvent L = European occupational exposure limit.

### Other information

ATEmix(inhale, vapour) > 20  
ATEmix(dermal) > 2000

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service (dial 111, 24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation**

Bring the person into fresh air and stay with him.

**Skin contact**

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

**Eye contact**

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

**Ingestion**

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

**Burns**

Rinse with water until the pain stops then continue to rinse for a further 30 minutes.

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

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Sensitisation: This product contains substances, which may produce an allergic reaction through inhalation. The allergic reaction is typically taking place within an hour subsequent to exposure. The reaction results in an inflammatory reaction to the lungs.

**4.3. Indication of any immediate medical attention and special treatment needed**

Nothing special

**Information to medics**

Bring this safety data sheet.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

**5.2. Special hazards arising from the substance or mixture**

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

**5.3. Advice for firefighters**

No specific requirements.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid inhalation of vapours from spilled material. Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

**6.2. Environmental precautions**

No specific requirements.

**6.3. Methods and material for containment and cleaning up**

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

**6.4. Reference to other sections**

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid static electricity. Protect electrical equipment in accordance with current standards. To divert static electricity during transmission, containers must be grounded and connected by wire with the receiving containers. Do not use spark-forming tools.

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection.

**7.2. Conditions for safe storage, including any incompatibilities**

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

**Storage temperature**

Room temperature 18 to 23°C

**7.3. Specific end use(s)**

This product should only be used for applications quoted in section 1.2

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****OEL**

2-butoxyethyl acetate butylglycol acetate

Long-term exposure limit (8-hour TWA reference period): 20 ppm | - mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 50 ppm | - mg/m<sup>3</sup>

Comments: Sk (Sk = Can be absorbed through skin. )

2-methoxy-1-methylethyl acetate

Long-term exposure limit (8-hour TWA reference period): 50 ppm | 274 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 100 ppm | 548 mg/m<sup>3</sup>

Comments: Sk (Sk = Can be absorbed through skin. )

n-butyl acetate

Long-term exposure limit (8-hour TWA reference period): 150 ppm | 724 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 200 ppm | 966 mg/m<sup>3</sup>

**DNEL / PNEC**

DNEL ( n-butyl acetate ): 480 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ( n-butyl acetate ): 7 mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ( n-butyl acetate ): 960 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Systemic effects - Workers

DNEL ( n-butyl acetate ): 960 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL ( n-butyl acetate ): 480 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL ( 2-methoxy-1-methylethyl acetate ): 153,5 mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ( 2-methoxy-1-methylethyl acetate ): 275 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL ( 2-butoxyethyl acetate butylglycol acetate ): 102 mg/kg

Exposure: Dermal

Duration of Exposure: Short term – Systemic effects - Workers

DNEL ( 2-butoxyethyl acetate butylglycol acetate ): 102 mg/kg

Exposure: Dermal  
 Duration of Exposure: Long term – Systemic effects - Workers  
 DNEL ( 2-butoxyethyl acetate butylglycol acetate ): 775 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Short term – Systemic effects - Workers  
 DNEL ( 2-butoxyethyl acetate butylglycol acetate ): 333 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Short term – Local effects - Workers  
 DNEL ( 2-butoxyethyl acetate butylglycol acetate ): 133 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Long term – Local effects - Workers  
 DNEL (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 1 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Short term – Local effects - Workers  
 DNEL (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 0,5 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Long term – Local effects - Workers  
 DNEL ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,92 mg/kg  
 Exposure: Dermal  
 Duration of Exposure: Long term – Systemic effects - Workers  
 DNEL ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 3,24 mg/m<sup>3</sup>  
 Exposure: Inhalation  
 Duration of Exposure: Long term – Systemic effects - Workers  
 PNEC ( n-butyl acetate ): 0,18 mg/l  
 Exposure: Freshwater  
 PNEC ( n-butyl acetate ): 0,018 mg/l  
 Exposure: Marine water  
 PNEC ( n-butyl acetate ): 0,36 mg/l  
 Exposure: Intermittent release  
 PNEC ( n-butyl acetate ): 0,981 mg/kg  
 Exposure: Freshwater sediment  
 PNEC ( n-butyl acetate ): 0,0981 mg/kg  
 Exposure: Marine water sediment  
 PNEC ( n-butyl acetate ): 0,0903 mg/kg  
 Exposure: Soil  
 PNEC ( n-butyl acetate ): 35,6 mg/l  
 Exposure: Sewage Treatment Plant  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 0,635 mg/l  
 Exposure: Freshwater  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 0,0635 mg/l  
 Exposure: Marine water  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 6,35 mg/l  
 Exposure: Intermittent release  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 3,29 mg/kg  
 Exposure: Freshwater sediment  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 0,329 mg/kg  
 Exposure: Marine water sediment  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 0,29 mg/kg  
 Exposure: Soil  
 PNEC ( 2-methoxy-1-methylethyl acetate ): 100 mg/l  
 Exposure: Sewage Treatment Plant  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 0,304 mg/l  
 Exposure: Freshwater  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 0,0304 mg/l  
 Exposure: Marine water  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 0,56 mg/l  
 Exposure: Intermittent release  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 2,03 mg/kg  
 Exposure: Freshwater sediment  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 0,203 mg/kg  
 Exposure: Marine water sediment  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 0,68 mg/kg  
 Exposure: Soil  
 PNEC ( 2-butoxyethyl acetate butylglycol acetate ): 90 mg/l  
 Exposure: Sewage Treatment Plant  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 0,127 mg/l  
 Exposure: Freshwater  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 0,0127 mg/l  
 Exposure: Marine water  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 1,27 mg/l  
 Exposure: Intermittent release  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 266700 mg/kg  
 Exposure: Freshwater sediment  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 26670 mg/kg  
 Exposure: Marine water sediment  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 53182 mg/kg  
 Exposure: Soil  
 PNEC (HEXAMETHYLENE,DIISOCYANATE,HOMOPOLYMER): 38,3 mg/l

Exposure: Sewage Treatment Plant  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,03 mg/l  
 Exposure: Freshwater  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,003 mg/l  
 Exposure: Marine water  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,0172 mg/kg  
 Exposure: Marine water  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,3 mg/l  
 Exposure: Intermittent release  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,172 mg/kg  
 Exposure: Freshwater sediment  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,0168 mg/kg  
 Exposure: Soil  
 PNEC ( 4-isocyanatosulphonyltoluene tosyl isocyanate ): 0,4 mg/l  
 Exposure: Sewage Treatment Plant

**8.2. Exposure controls**

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

**General recommendations**

Observe general occupational hygiene standards.

**Exposure scenarios**

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

**Exposure limits**

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

**Appropriate technical measures**

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

**Hygiene measures**

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

**Measures to avoid environmental exposure**

No specific requirements.

**Individual protection measures, such as personal protective equipment**



**Generally**

Use only CE marked protective equipment.

**Respiratory Equipment**

Recommended: Combination filter A2P3. Class 2/3. Brown/White

**Skin protection**

Wear appropriate protection clothing, e.g. coveralls in polypropylene approved type 6 and Category III.

**Hand protection**

Recommended: Natural rubber (latex )

**Eye protection**

Wear safety glasses with side shields.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Form	Liquid
Colour	Colourless
Odour	Solvent
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm³)	0,96-1,07
<b>Phase changes</b>	
Melting point (°C)	No data available.
Boiling point (°C)	No data available.

Vapour pressure

No data available.

Decomposition temperature (°C)

No data available.

Evaporation rate (n-butylacetate = 100)

No data available.

**Data on fire and explosion hazards**

Flash point (°C)

25

Ignition (°C)

No data available.

Auto flammability (°C)

No data available.

Explosion limits (% v/v)

No data available.

Explosive properties

No data available.

**Solubility**

Solubility in water

Insoluble

n-octanol/water coefficient

No data available.

**9.2. Other information**

Solubility in fat (g/L)

No data available.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data available

**10.2. Chemical stability**

The product is stable under the conditions, noted in the section "Handling and storage".

**10.3. Possibility of hazardous reactions**

Nothing special

**10.4. Conditions to avoid**

Avoid static electricity. Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Substance	Species	Test	Route of exposure	Result
4-isocyanatosulphonyltoluene	Rat	LD50	Oral	2330 mg/kg
...	Rat	LD50	Dermal	>2300 mg/kg
4-isocyanatosulphonyltoluene	Rat	LD50	Oral	1850 mg/kg
...	Rabbit	LD50	Dermal	1500 mg/kg
2-butoxyethyl acetate butylg...	-	LC50	Inhalation	1,5 mg/l
2-butoxyethyl acetate butylg...	Rat	LD50	Oral	8532 mg/kg
2-butoxyethyl acetate butylg...	Rat	LC50	Inhalation	35,7 mg/m <sup>3</sup>
2-methoxy-1-methylethyl aceta...	Rabbit	LD50	Dermal	>5000 mg/kg
2-methoxy-1-methylethyl aceta...	Rat	LD50	Oral	>5000 mg/kg
2-methoxy-1-methylethyl aceta...	Rabbit	LD50	Dermal	>2000 mg/kg
2-methoxy-1-methylethyl aceta...	Rat	LD50	Oral	10768 mg/kg
2-methoxy-1-methylethyl aceta...	Rabbit	LD50	Dermal	17600 mg/kg
2-methoxy-1-methylethyl aceta...	Rat	LC50	Inhalation	23,4 mg/l 4h
HEXAMETHYLENE,DIISOCYANATE,HOM...	Rat	LD50	Dermal	10760 mg/kg
HEXAMETHYLENE,DIISOCYANATE,HOM...	Mouse	LD50	Oral	6mg/kg
HEXAMETHYLENE,DIISOCYANATE,HOM...				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				

**Skin corrosion/irritation**

No data available.

**Serious eye damage/irritation**

No data available.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction. Sensitisation: This product contains substances, which may produce

an allergic reaction through inhalation. The allergic reaction is typically taking place within an hour subsequent to exposure. The reaction results in an inflammatory reaction to the lungs.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### STOT-single exposure

May cause drowsiness or dizziness.

#### STOT-repeated exposure

No data available.

#### Aspiration hazard

No data available.

#### Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Species	Test	Duration	Result
4-isocyanatosulphonyltoluene				
...				
4-isocyanatosulphonyltoluene				
...				
4-isocyanatosulphonyltoluene				
...				
2-butoxyethyl acetate butylg...				
2-butoxyethyl acetate butylg...				
2-butoxyethyl acetate butylg...				
2-methoxy-1-methylethyl acet...	Daphnia	EC50	48 h	>100 mg/l
2-methoxy-1-methylethyl acet...	Algae	EC50	72 h	30 mg/l
2-methoxy-1-methylethyl acet...	Fish	LC50	48 h	>45 mg/l
2-methoxy-1-methylethyl acet...	Daphnia	EC50	24 h	>100 mg/l
2-methoxy-1-methylethyl acet...	Algae	EC50	72 h	>100 mg/l
2-methoxy-1-methylethyl acet...	Fish	LC50	48 h	10-100 mg/l
2-methoxy-1-methylethyl acet...	Algae	EC10	30 min	>1000 mg/l
2-methoxy-1-methylethyl acet...	Algae	EC50		>100 mg/l
2-methoxy-1-methylethyl acet...	Fish	EC50		>100 mg/l
2-methoxy-1-methylethyl acet...	Daphnia	EC50		>100 mg/l
2-methoxy-1-methylethyl acet...	Daphnia	EC50	48 h	>500 mg/l
2-methoxy-1-methylethyl acet...	Fish	EC50	72 h	>1000 mg/l
2-methoxy-1-methylethyl acet...	Fish	LC50	96 h	>100 mg/l
2-methoxy-1-methylethyl acet...	Crustacean	EC10	30 min	>1000 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Algae	EC50		>100 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Fish	EC50		>1000 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Daphnia	EC50		>100 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Daphnia	EC50	48 h	>500 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Algae	EC50	72 h	>1000 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Fish	LC50	96 h	>100 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Fish	NOEC		>100 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Crustacean	NOEC		>100 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Daphnia	EC50	48 h	44 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Algae	EC50	72 h	675 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Fish	LC50	96 h	18 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Algae	NOEC	16 h	115 mg/l
HEXAMETHYLENE,DIISOCYANATE,HOM...	Crustacean	EC50	48 h	32 mg/L
HEXAMETHYLENE,DIISOCYANATE,HOM...				
HEXAMETHYLENE,DIISOCYANATE,HOM...				
HEXAMETHYLENE,DIISOCYANATE,HOM...				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				
n-butyl acetate				



**12.2. Persistence and degradability**

Substance	Biodegradability	Test	Result
4-isocyanatosulphonyltoluene			
...			
2-butoxyethyl acetate butylg...	Yes	Closed Bottle Test	86 %
2-methoxy-1-methylethyl aceta...	Yes	Modified OECD Screening Test	>70 %
	Yes	Modified OECD Screening Test	100%
HEXAMETHYLENE,DIISOCYANATE,HOM...	No	Closed Bottle Test	1%
n-butyl acetate	Yes	Closed Bottle Test	83%

**12.3. Bioaccumulative potential**

Substance	Potential bioaccumulation	LogPow	BCF
4-isocyanatosulphonyltoluene			
...	No	No data available	No data available
2-methoxy-1-methylethyl aceta...	Yes	0,56	No data available
n-butyl acetate	Yes	2,3	15,3

**12.4. Mobility in soil**

2-methoxy-1-methylethyl aceta...: Log Koc= 1,7 (High mobility potential.).  
n-butyl acetate : Log Koc= 1,27 (High mobility potential.).

**12.5. Results of PBT and vPvB assessment**

Contains epoxy compounds. See information supplied by the manufacturer.

**12.6. Other adverse effects**

This product contains substances, which due to poor biodegradability, may cause adverse long-term effects to the aquatic environment, This product contains substances with the potential of bioaccumulation resulting in the risk of accumulation in the food chain. Bioaccumulative substances are concentrated in adipose tissue and are not easily secreted.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Product is covered by the regulations on hazardous waste.

**Waste**

EWC code

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**Specific labelling**

-

**Contaminated packing**

Contaminated packaging must be disposed of similarly to the product.

**SECTION 14: Transport information****14.1 – 14.4**

This product is within scope of the regulations of transport of dangerous goods.

**ADR/RID**

14.1. UN number	1263
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	3
14.4. Packing group	III
Notes	-
Tunnel restriction code	D/E

**IMDG**

UN-no.	1263
Proper Shipping Name	PAINT RELATED MATERIAL
Class	3
PG*	III
EmS	F-E,S-E
MP**	-
Hazardous constituent	-

**IATA/CAO**

<b>UN-no.</b>	1263
<b>Proper Shipping Name</b>	PAINT RELATED MATERIAL
<b>Class</b>	3
<b>PG*</b>	III

**14.5. Environmental hazards**

-

**14.6. Special precautions for user**

-

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available

(\*) Packing group

(\*\*) Marine pollutant

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Restrictions for application**

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

**Demands for specific education**

-

**Additional information**

-

**Sources**

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

EC regulation 1907/2006 (REACH).

**15.2. Chemical safety assessment**

No

**SECTION 16: Other information****Full text of H-phrases as mentioned in section 3**

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.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness.

EUH066 - Repeated exposure may cause skin dryness or cracking.

**The full text of identified uses as mentioned in section 1**

-

**Additional label elements**

-

**Other**

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture

is based on:

The classification of the mixture in regard of physical hazards has been based on experimental data.

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

**The safety data sheet is validated by**

JW

**Date of last essential change  
(First cipher in SDS version)**

2017-06-08

**Date of last minor change  
(Last cipher in SDS version)**

2017-06-08