

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 1/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

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

- **1.1 Product identifier**
- **Trade name:** Normadur 65 HS Comp. A
- **UFI:** 69MV-YUXA-0004-FTR4
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use** Coating
- **Application of the substance / the mixture**
2-comp. polyurethane paint, Comp. A
Uses in Coatings - Industrial use
Uses in Coatings - Professional use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Nor-Maali Oy
Vanhatie 20, 15240 Lahti, FINLAND
- **Further information obtainable from:** MSDS (Nor-Maali Oy) tel.+358 3 874 650, sds@nor-maali.fi
- **1.4 Emergency telephone number:** Contact National Poison Center

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



GHS02



GHS07



GHS09

Signal word Warning

Hazard-determining components of labelling:

maleic anhydride
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine
Fatty acids, C14-18 and C16-18-unsatd., maleated
Fatty acids, C18-unsaturated, trimers, with oleylamine
Fatty acids, tall-oil, compds. with oleylamine

(Contd. on page 2)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 2/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 1)

Hazard statements

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P403+P235 Store in a well-ventilated place. Keep cool.

Additional information:

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-	xylene Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	10 - 25%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35-	ethylbenzene Flam. Liq. 2, H225; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H332	2.5 - 10%
CAS: 7779-90-0 EINECS: 231-944-3 Reg.nr.: 01-2119485044-40-	trizinc bis(orthophosphate) Aquatic Acute 1, H400; Aquatic Chronic 1, H410	2.5 - 10%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35-	1-methoxy-2-propanol Flam. Liq. 3, H226; STOT SE 3, H336	2.5 - 10%
CAS: 77-99-6 EINECS: 201-074-9 Reg.nr.: 01-2119486799-10-	propylidynetrimethanol Repr. 2, H361fd	< 0.4%
CAS: 100545-48-0 EC number: 309-629-8 Reg.nr.: 01-2119979085-27-	Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine Skin Sens. 1, H317	< 0.4%
CAS: 85711-46-2 EINECS: 288-306-2 Reg.nr.: 01-2119976378-19-	Fatty acids, C14-18 and C16-18-unsatd., maleated Skin Irrit. 2, H315; Skin Sens. 1, H317	< 0.3%
CAS: 147900-93-4 EC number: 604-612-4 Reg.nr.: 01-2119971821-33-	Fatty acids, C18-unsaturated, trimers, with oleylamine STOT RE 1, H372; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Sens. 1, H317	< 0.3%
CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32-	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	< 0.2%

(Contd. on page 3)

GB

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 3/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

CAS: 85711-55-3 EINECS: 288-315-1 Reg.nr.: 01-2119974148-28-	Fatty acids, tall-oil, compds. with oleylamine	(Contd. of page 2) < 0.2%
	STOT RE 2, H373; Eye Dam. 1, H318; Skin Sens. 1, H317	
CAS: 108-31-6 EINECS: 203-571-6 Reg.nr.: 01-2119472428-31	maleic anhydride	< 0.00275%
	Resp. Sens. 1, H334; STOT RE 1, H372; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	

· **Additional information:**

Contains: > 1 % TiO₂ (<10 µm)

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Never give anything by mouth or induce vomiting to an unconscious person or a person who has convulsions.

· **After inhalation:**

Remove person exposed to excessive solvent concentrations to fresh air, keep patient warm and at rest. If breathing is irregular, call national emergency number, if needed start giving artificial respiration and seek medical advice.

· **After skin contact:**

Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

· **After eye contact:**

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

· **After swallowing:**

If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

· **Information for doctor:** Treatment according to symptoms.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Alcohol resistant foam, CO₂, powders, water spray.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

In a fire or if heated, a pressure increase will occur and the container may burst.

· **5.3 Advice for firefighters**

Evacuate people from danger area and deny access to area. Remove containers from danger area and try to cool containers which cannot be removed safely. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

· **Protective equipment:** Compressed air respirator and protective clothing.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation.

Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

· **6.2 Environmental precautions:**

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

(Contd. on page 4)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 4/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 3)

6.3 Methods and material for containment and cleaning up:

Absorb liquid components with liquid-binding material (sand, peat or other absorbent material).
Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, earth drum and connect to receiving container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Information about fire - and explosion protection:

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in accordance with local regulations. Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. Keep away from: oxidising agents, strong alkalis, strong acids. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

1330-20-7 xylene

HTP	Short-term value: 440 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
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100-41-4 ethylbenzene

HTP	Short-term value: 880 mg/m ³ , 200 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
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107-98-2 1-methoxy-2-propanol

HTP	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 370 mg/m ³ , 100 ppm Sk
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(Contd. on page 5)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 5/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 4)

108-31-6 maleic anhydride

HTP	Long-term value: 0.41 mg/m ³ , 0.1 ppm Ceiling limit m ³ , 0.2 ppm Sen	: 0.81 mg/
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· DNELs

1330-20-7 xylene

Dermal	DNEL	180 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	211 mg/m3 (Workers - Long-term systemic effects)

100-41-4 ethylbenzene

Dermal	DNEL	180 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	77 mg/m3 (Workers - Long-term systemic effects) 442 mg/m3 (Workers - Long-term local effects)

7779-90-0 trizinc bis(orthophosphate)

Dermal	DNEL	83 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	5 mg/m3 (Workers - Long-term systemic effects)

107-98-2 1-methoxy-2-propanol

Dermal	DNEL	183 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	369 mg/m3 (Workers - Long-term systemic effects)

77-99-6 propyldynetrithanol

Dermal	DNEL	940 µg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	3.3 mg/m3 (Workers - Long-term systemic effects)

100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine

Inhalative	DNEL	0.308 mg/m3 (Workers - Long-term local effects)
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85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated

Dermal	DNEL	3.33 mg/kg bw/day (Workers - Long-term systemic effects)
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147900-93-4 Fatty acids, C18-unsaturated, trimers, with oleylamine

Dermal	DNEL	24 µg/kg bw/day (Workers - Long-term systemic effects)
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1314-13-2 zinc oxide

Dermal	DNEL	83 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	5 mg/m3 (Workers - Long-term systemic effects)

85711-55-3 Fatty acids, tall-oil, compds. with oleylamine

Dermal	DNEL	0.024 mg/kg bw/day (Workers - Long-term systemic effects)
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108-31-6 maleic anhydride

Dermal	DNEL	0.2 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative	DNEL	0.081 mg/m3 (Workers - Long-term systemic effects)

· PNECs

1330-20-7 xylene

PNEC	6.58 mg/L (Sewage treatment)
PNEC	12.46 mg/kg dwt (Fresh water sediment)
	12.46 mg/kg dwt (Marine water sediment)
	2.31 mg/kg dwt (Soil)
PNEC	2.31 mg/kg (Soil)
PNEC	327 µg/L (Freshwater)
	327 µg/L (Marine water)

100-41-4 ethylbenzene

PNEC	0.1 mg/L (Freshwater)
	0.01 - 0.1 mg/L (Marine water)
	9.6 mg/L (Sewage treatment)
PNEC	13.7 mg/kg dwt (Fresh water sediment)
	1.37 mg/kg dwt (Marine water sediment)

(Contd. on page 6)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 6/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 5)

PNEC	2.68 mg/kg dwt (Soil)
PNEC	20 mg/kg (Secondary Poisoning)
7779-90-0 trizinc bis(orthophosphate)	
PNEC	117.8 mg/kg dwt (Fresh water sediment)
	56.5 mg/kg dwt (Marine water sediment)
	35.6 mg/kg dwt (Soil)
PNEC	20 µg/L (Freshwater)
	6.1 µg/L (Marine water)
	100 µg/L (Sewage treatment)
107-98-2 1-methoxy-2-propanol	
PNEC	10 mg/L (Freshwater)
	1 mg/L (Marine water)
	100 mg/L (Sewage treatment)
PNEC	52.3 mg/kg dwt (Fresh water sediment)
	5.2 mg/kg dwt (Marine water sediment)
PNEC	4.59 mg/kg (Soil)
100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	
PNEC	0.058 mg/kg dwt (Fresh water sediment)
	0.0058 mg/kg dwt (Marine water sediment)
PNEC	0.484 mg/kg (Soil)
85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated	
PNEC	100 mg/L (Sewage treatment)
147900-93-4 Fatty acids, C18-unsaturated, trimers, with oleylamine	
PNEC	2.46 mg/kg dwt (Fresh water sediment)
	0.25 mg/kg dwt (Marine water sediment)
PNEC	0.47 mg/kg (Secondary Poisoning)
	0.28 mg/kg (Soil)
PNEC	6 µg/L (Freshwater)
	0.6 µg/L (Marine water)
1314-13-2 zinc oxide	
PNEC	117.8 mg/kg dwt (Fresh water sediment)
	56.5 mg/kg dwt (Marine water sediment)
PNEC	35.6 mg/kg (Soil)
PNEC	20.6 µg/L (Freshwater)
	6.1 µg/L (Marine water)
	100 µg/L (Sewage treatment)
85711-55-3 Fatty acids, tall-oil, compds. with oleylamine	
PNEC	0.47 mg/kg (Secondary Poisoning)
108-31-6 maleic anhydride	
PNEC	0.0379 - 0.075 mg/L (Freshwater)
	0.00379 - 0.0075 mg/L (Marine water)
	4.46 - 44.6 mg/L (Sewage treatment)
PNEC	0.06 - 0.296 mg/kg dwt (Fresh water sediment)
	0.006 - 0.0296 mg/kg dwt (Marine water sediment)
PNEC	6.67 mg/kg (Secondary Poisoning)
	0.01 - 0.0369 mg/kg (Soil)
Ingredients with biological limit values:	
1330-20-7 xylene	
BMGV	5.0 mmol/l creatinine
	Sampling time: post shift
	Parameter: methyl hippuric acid of urine

(Contd. on page 7)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 7/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 6)

100-41-4 ethylbenzene

BMGV 5.2 mmol/l creatinine
Sampling time: post shift after working week or exposure period
Parameter: mandelic acid of urine

Additional information:

The information is based on the valid lists at the time of manufacture (Finland 654/2020).

8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the HTP, suitable respiratory protection must be worn.

Respiratory protection:

If ventilation is insufficient or if workers are exposed to concentrations above the exposure limit they must use half- or full mask with gas filter A (brown, organic substances), and when grinding P2 (Ilb) -type dust filter. Mask with combined filter (gas & dust) A2-P2 must be used when spraying. In the continuous long-term work it is recommended to use motored air protector or separative protector (fresh air hood or compressed air hood or such).

Hand protection



Protective gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Wear suitable gloves tested to EN374.

May be used, gloves(breakthrough time) 4 - 8 hours: butyl rubber, nitrile rubber

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/face protection



Tightly sealed goggles

The eye flushing device should be located near the the paint work area.

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state

Fluid

Colour:

Coloured

Odour:

Strong

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

Boiling point or initial boiling point and boiling range

136 °C (100-41-4 ethylbenzene)

Flammability

Not applicable.

Lower and upper explosion limit

Lower:

1.1 Vol % (1330-20-7 xylene)

Upper:

7 Vol % (1330-20-7 xylene)

Flash point:

24 °C

Auto-ignition temperature:

430 °C (100-41-4 ethylbenzene)

(Contd. on page 8)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 8/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 7)

· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity at 40 °C	> 20.5 mm ² /s
· Dynamic:	Not determined.
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	6.7 - 8.2 hPa (1330-20-7 xylene)
· Density and/or relative density	
· Density at 20 °C:	1.2 - 1.3 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	
Flammable liquid and vapour.	
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No specific test data related to reactivity available for this product or its ingredients.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
In confined or poorly ventilated spaces solvent may form an explosive mixture with air.
- **10.3 Possibility of hazardous reactions**
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **10.4 Conditions to avoid**
Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- **10.5 Incompatible materials:** No further relevant information available.

(Contd. on page 9)

GB

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 9/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 8)

10.6 Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

LD/LC50 values relevant for classification:

1330-20-7 xylene

Oral	LD50	> 3,253 mg/kg (rat)
Dermal	LD50	12,126 mg/kg (rabbit)
Inhalative	LC50/4 h	27.124 mg/l (rat)

100-41-4 ethylbenzene

Oral	LD50	> 3,500 mg/kg (rat)
Dermal	LD50	> 15,400 mg/kg (rabbit)
Inhalative	LC50/4 h	> 17.629 mg/l (rat)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD50	> 5,000 mg/kg (rat)
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107-98-2 1-methoxy-2-propanol

Oral	LD50	4,016 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

77-99-6 propyldynetrimehanol

Oral	LD50	14,700 mg/kg (rat)
Dermal	LD50	10,000 mg/kg (rabbit)
Inhalative	LC50/4 h	850 mg/l (rat)

100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine

Oral	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	> 5,050 mg/l (rat)

85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated

Oral	LD50	> 2,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

147900-93-4 Fatty acids, C18-unsaturated, trimers, with oleylamine

Oral	LD50	1,570 mg/kg (rat)
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1314-13-2 zinc oxide

Oral	LD50	> 5,000 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	5,700 mg/l (rat)

85711-55-3 Fatty acids, tall-oil, compds. with oleylamine

Oral	LD50	> 2,000 mg/kg (rat)
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108-31-6 maleic anhydride

Oral	LD50	1,090 mg/kg (rat)
Dermal	LD50	2,620 mg/kg (rabbit)

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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

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

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

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

(Contd. on page 10)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 10/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 9)

- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):**
Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Swallowing may cause nausea, diarrhea, vomiting, gastro-intestinal irritation and chemical pneumonia.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Ethylbenzene may cause cancer to humans (carcinogenic, group 2B, IARC), but information available is insufficient for satisfactory estimate.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

556-67-2 | octamethylcyclotetrasiloxane

List II, III

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

1330-20-7 xylene

48-h EC50 165 mg/L (Daphnia magna)
96-h LC50 26.7 mg/L (Pimephales promelas)
48-h LC50 86 mg/L (Leuciscus idus melanotus)

100-41-4 ethylbenzene

48-h EC50 7.2 mg/L (Daphnia magna)
96-h LC50 4.2 mg/L (Oncorhynchus mykiss)

7779-90-0 trizinc bis(orthophosphate)

48-h EC50 > 2.34 mg/L (Daphnia magna)
96-h LC50 0.112 - 2.92 mg/L (Fish)
72-h IC50 0.136 - 0.15 mg/L (Algae)

107-98-2 1-methoxy-2-propanol

48-h EC50 21.1 - 25.9 mg/L (Daphnia magna)
96-h LC50 1 - 20.8 mg/L (Fish)

77-99-6 propylidynetrimethanol

72-h EC50 1 mg/L (Algae)
48-h EC50 13 mg/L (Daphnia magna)
96-h LC50 1 - 10 mg/L (Fish)

100545-48-0 Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine

96-h LL50 10 mg/L (Fish)
48-h EL50 10 mg/L (Daphnia magna)
72-h EL50 100 mg/L (Algae)

85711-46-2 Fatty acids, C14-18 and C16-18-unsatd., maleated

72-h EC50 2.76 - 100 mg/L (Algae)
48-h EC50 0.53 - 100 mg/L (Daphnia magna)
96-h LC50 1.17 - 100 mg/L (Fish)

147900-93-4 Fatty acids, C18-unsaturated, trimers, with oleylamine

96-h LL50 100 mg/L (Fish)
48-h EL50 100 mg/L (Daphnia magna)
72-h EL50 8 mg/L (Algae)

(Contd. on page 11)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 11/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 10)

1314-13-2 zinc oxide

96-h EC50	0.3 - 1.94 mg/L (Algae)
48-h EC50	155 - 100,000 ppm (Daphnia magna)
96-h LC50	112 - 8,062 ppm (Fish)

85711-55-3 Fatty acids, tall-oil, compds. with oleylamine

72-h EC50	7.4 mg/L (Algae)
96-h LL50	100 mg/L (Fish)
48-h EL50	15.2 mg/L (Daphnia magna)
72-h EL50	6 - 7 mg/L (Algae)

108-31-6 maleic anhydride

72-h EC50	65.78 - 150 mg/L (Algae)
48-h EC50	42.81 - 330 mg/L (Daphnia magna)
96-h LC50	75 mg/L (Fish)

12.2 Persistence and degradability

Biodegradation:
Xylene: readily
Trizinc bis(orthophosphate): not readily
Ethylbenzene: readily
1-methoxy-2-propanol: 96 % (28 d) -> readily
zinc oxide: not readily

12.3 Bioaccumulative potential

Xylene: LogPow = 3,12 (low)
Ethylbenzene: LogPow = 3,15 (low)

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

Remark: Harmful to fish

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.

European waste catalogue

08 01 11* waste paint and varnish containing organic solvents or other hazardous substances

Uncleaned packaging:

Recommendation:

Empty, dry paint containers (hole made to the bottom) should be taken to collection centres for metallic paint packages. If this collecting/recycling centre doesn't exist, containers can be taken to a local dump pit. For more information contact your local waste disposal authorities or paint deliverer.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

UN1263

14.2 UN proper shipping name

ADR

IMDG

PAINT, ENVIRONMENTALLY HAZARDOUS

PAINT, MARINE POLLUTANT

Marine Pollutant Chemical: trizinc bis(orthophosphate)

(Contd. on page 12)

Safety data sheet



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 12/13

Date of revision: 13.04.2023
Date of previous issue: 05.10.2022
Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 11)

· IATA	PAINT
· 14.3 Transport hazard class(es)	
· ADR, IMDG	
	
· Class	3 Flammable liquids.
· IATA	
	
· Class	3 Flammable liquids.
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Fatty acids, C18-unsaturated, trimers, with oleylamine
· Marine pollutant:	No
· Special marking (ADR):	The environmental hazardous mark is only applicable for packages containing more than 5 litres of liquids. Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E, <u>S</u> -E
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· UN "Model Regulation":	UN 1263 PAINT, 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category
FLAMMABLE LIQUIDS
E2 Hazardous to the Aquatic Environment
P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

(Contd. on page 13)

Safety data sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II,
as amended by Commission Regulation (EU) 2020/878

Page 13/13

Date of revision: 13.04.2023
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Version number 10 (replaces version 9)

Trade name: Normadur 65 HS Comp. A

(Contd. of page 12)

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H336 May cause drowsiness or dizziness.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H373 May cause damage to organs through prolonged or repeated exposure.
- 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.

· **Contact:** Nor-Maali Oy, tel. +358 3 874 650 or sds@nor-maali.fi

· **Date of previous version:** 05.10.2022

· **Version number of previous version:** 9

· Abbreviations and acronyms:

- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Skin Sens. 1A: Skin sensitisation – Category 1A
- Repr. 2: Reproductive toxicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· *** Data compared to the previous version altered.**