

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

Date of revision: 05.01.2024 Date of previous issue: 26.09.2023 Version number 2 (replaces version 1)

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

- · 1.1 Product identifier
- · Trade name: Normathane 50 FD Comp. B
- · UFI: 7UPF-JVE5-R007-APCC
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use Coating
- Product category PC9a Coatings and paints, thinners, paint removers
- Application of the substance / the mixture

2-comp. polyurethane paint, Comp. B 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.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

- · 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

- Signal word Warning
- · Hazard-determining components of labelling:

Hexamethylene-1,6-diisocyanatehomopolymer

n-butyl acetate

hexamethylene-di-isocyanate

Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

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

Precautionary statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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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].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

· Additional information:

As from 24 August 2023 adequate training is required before industrial or professional use.

- · 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: 28182-81-2	Hexamethylene-1,6-diisocyanatehomopolymer	50 - 90%
NLP: 500-060-2	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335 ATE: ATE inhalative: 1.5 mg/l	
CAS: 123-86-4	n-butyl acetate	10 - 25%
EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-	Flam. Liq. 3, H226; STOT SE 3, H336, EUH066	
CAS: 822-06-0	hexamethylene-di-isocyanate	< 0.3%
EINECS: 212-485-8 Reg.nr.: 01-2119457571-37-	Acute Tox. 3, H331; Resp. Sens. 1, H334; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204	
	ATE: ATE oral: 746 mg/kg	
	ATE inhalative: 0.124 mg/l	
	Specific concentration limits: Resp. Sens. 1; H334: C ≥ 0.5 %	
	Skin Sens. 1; H317: C ≥ 0.5 %	

[·] Additional information: 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.

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• 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 No further relevant information available.
- 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.

· 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).

· 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

Provide sufficient air exchange and/or exhaust in work rooms. Exhaust ventilation necessary if product is sprayed. The threshold limit values noted in Chapter 8 must be monitored. In all areas where isocyanate aerosols and/or vapor concentrations are produced in elevated concentrations, exhaust ventilation must be provided in such a way that the workplace exposure limits (HTP) is not exceeded. The air should be drawn away from the personnel handling the product.

The personal protective measures must be observed. The precautions required in the handling of isocyanates must be taken.

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.

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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

Ingredients with limit	/alues that require	monitoring at the	ne workplace:

123-86-4 n-butyl acetate

HTP (Finland) Short-term value: 725 mg/m³, 150 ppm

Long-term value: 240 mg/m³, 50 ppm

822-06-0 hexamethylene-di-isocyanate

HTP (Finland) Short-term value: 0.035 mg/m³

NCO

·DNELs

123-86-4 n-butyl acetate

Dermal DNEL 7 mg/kg bw/day (Workers - Long-term systemic effects)
Inhalative DNEL 480 mg/m3 (Workers - Long-term systemic effects)

822-06-0 hexamethylene-di-isocyanate

Inhalative DNEL 0.035 mg/m3 (Workers - Long-term local effects)

· PNECs

123-86-4 n-butyl acetate

PNEC 0.18 mg/L (Freshwater)

0.018 mg/L (Marine water)

35.6 mg/L (Sewage treatment)

PNEC 0.981 mg/kg dwt (Fresh water sediment)

0.0981 mg/kg dwt (Marine water sediment)

0.0903 mg/kg dwt (Soil)

822-06-0 hexamethylene-di-isocyanate

PNEC 8.42 mg/L (Sewage treatment)

PNEC 0.674 mg/kg dwt (Fresh water sediment)

0.0674 mg/kg dwt (Marine water sediment)

PNEC 0.523 mg/kg (Soil)

PNEC 49 µg/L (Freshwater)

4.9 µg/L (Marine water)

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 (IIb) -type dust filter. Mask with combined filter (gas & dust) ABP 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 (Contd. on page 5)



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· 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
Colour:
Odour:
Odour threshold:
Melting point/freezing point:
Fluid
Colourless
Characteristic
Not determined.
Undetermined.

Boiling point or initial boiling point and boiling

range 124 - 128 °C (123-86-4 n-butyl acetate)

Flammability Flammable.

Lower and upper explosion limit

 Lower:
 1.2 Vol % (123-86-4 n-butyl acetate)

 Upper:
 7.5 Vol % (123-86-4 n-butyl acetate)

Flash point: 35 °C

Decomposition temperature: Not determined.pH Not determined.

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined.

Solubility

• water: Not miscible or difficult to mix.

· Partition coefficient n-octanol/water (log value) Not determined.

• **Vapour pressure at 20 °C:** 10.7 hPa (123-86-4 n-butyl acetate)

· Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 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

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· Ovidicina assoc

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· Oxidising gases	vola
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:

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.

Void

- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced. No dangerous decomposition products known.

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.

Acute tox	Acute toxicity based on available data, the classification chieffs are not met.		
· LD/LC50 v	· LD/LC50 values relevant for classification:		
ATE (Acute Toxicity Estimates)			
Inhalative	LC50/4 h	> 0.51 mg/l (rat)	
28182-81-	28182-81-2 Hexamethylene-1,6-diisocyanatehomopolymer		
Oral	LD50	> 5,000 mg/kg (rat) (OECD TG 423)	
Dermal	LD50	> 2,000 mg/kg (rat) (OECD TG 402)	
123-86-4 r	123-86-4 n-butyl acetate		
Oral	LD50	10,760 mg/kg (rat) (OECD 423)	
Dermal	LD50	> 14,112 mg/kg (rabbit)	
Inhalative	LC50/4 h	> 21.1 mg/l (rat)	
	822-06-0 hexamethylene-di-isocyanate		
Inhalative	LC50/4 h	0.124 mg/l (rat)	
· Skin corre	osion/irrita	ation Based on available data, the classification criteria are not met.	

- · 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 May cause respiratory irritation. May cause drowsiness or dizziness.
- STOT-repeated exposure Based on available data, the classification criteria are not met.

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- · 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.

- 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity:

28182-81-2 Hexamethylene-1,6-diisocyanatehomopolymer

48-h EC50 > 100 mg/L (Daphnia magna)

96-h LC50 > 100 mg/L (Danio rerio)

123-86-4 n-butyl acetate

72-h EC50 647.7 mg/L (Desmodesmus subspicatus)

48-h EC50 44 mg/L (Daphnia magna)

96-h LC50 18 mg/L (Pimephales promelas) (OECD 203)

NOEC 200 mg/L (Desmodesmus subspicatus)

822-06-0 hexamethylene-di-isocyanate

72-h EC50 77.4 mg/L (Algae)

96-h LC0 82.8 mg/L (Fish)

48-h EC0 89.1 mg/L (Daphnia magna)

12.2 Persistence and degradability

Biodegradability:

n-butyl acetate: 90 %, 28 d -> readily

Hexamethylene-1,6-diisocyanate homopolymer: 2 %, 28 d; not readily degradable

Hexamethylene-1,6-diisocyanate homopolymer: 7,7 h @ 23 °C -> the substance hydrolyzes rapidly in water

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 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

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.

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

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- · 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.

UN1263
PAINT
3 Flammable liquids.
III
Not applicable.
Warning: Flammable liquids. 30 F-E, <u>S-E</u> A
O Not applicable.
5L 3 D/E
5L

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 P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 74
- 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.

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· 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

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

Harmful if inhaled. H332

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

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH204 Contains isocyanates. May produce an allergic reaction.

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

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Abbreviations and acronyms:

ATE: Acute toxicity estimate values

Flam. Liq. 3: Flammable liquids - Category 3

Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1 Skin Sens. 1: Skin sensitisation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.