SAFETY DATA SHEET

NICOSIT 1340-11

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

1.1 Product identifier

Product name : NICOSIT 1340-11

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : In an emergency, call 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226
Eye Dam. 1, H318
STOT SE 3, H336

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 - Flammable liquid and vapour.
H318 - Causes serious eye damage.
H336 - May cause drowsiness or dizziness.

Precautionary statements

Prevention : P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Contains: n-Butyl acetate and Propan-1-ol

SECTION 2: Hazards identification

Supplemental label elements : Contains Formaldehyde and Maleic anhydride. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
n-Butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Urea, polymer with formaldehyde, butylated	CAS: 68002-19-7	≤10	Aquatic Chronic 4, H413	-	[1]
1-Methoxy 2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤10	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
Urea-formaldehyde-polymer	CAS: 68002-18-6	≤10	Aquatic Chronic 4, H413	-	[1]
Propan-1-ol	REACH #: 01-2119486761-29 EC: 200-746-9 CAS: 71-23-8 Index: 603-003-00-0	≤10	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336	-	[1]
Butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	ATE [Oral] = 790 mg/kg	[1]
Ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≤3	Flam. Liq. 2, H225 Eye Irrit. 2, H319	-	[1]
Formaldehyde	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg	[1] [2]

SECTION 3: Composition/information on ingredients

	Index: 605-001-00-5		Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	ATE [Inhalation (gases)] = 700 ppm Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25% Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 5% ≤ C < 25% Skin Sens. 1, H317: C ≥ 0.2% STOT SE 3, H335: C ≥ 5%	
Maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	<0.001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

SECTION 7: Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonnes	50000 tonnes

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-Butyl acetate	**Regulation on Limit Values - MAC (Austria, 12/2024) [Butylacetat alle Isomeren außer tert-Butylacet]** CEIL: 480 mg/m³. CEIL: 100 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Regulation on Limit Values - MAC (Austria, 12/2024)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 187 mg/m³. CEIL: 50 ppm. CEIL: 187 mg/m³.
Propan-1-ol	**Regulation on Limit Values - MAC (Austria, 12/2024)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³.
Butan-1-ol	**Regulation on Limit Values - MAC (Austria, 12/2024) [Butanol (alle Isomeren außer 2-Methyl-2-propanol)]** PEAK 15 minutes: 200 ppm 4 times per shift. TWA 8 hours: 150 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 600 mg/m³ 4 times per shift.
Ethanol	**Regulation on Limit Values - MAC (Austria, 12/2024)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. CEIL 60 minutes: 2000 ppm 3 times per shift. CEIL 60 minutes: 3800 mg/m³ 3 times per shift.

Formaldehyde	**Regulation on Limit Values - MAC (Austria, 12/2024)** Carc A2. Skin sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. CEIL: 0.6 ppm. CEIL: 0.74 mg/m³.
Maleic anhydride	**Regulation on Limit Values - MAC (Austria, 12/2024)** Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m³. CEIL 5 minutes: 0.2 ppm 8 times per shift. CEIL 5 minutes: 0.8 mg/m³ 8 times per shift.
n-Butyl acetate	**Limit values (Belgium, 12/2023) [butylacetaat]** STEL 15 minutes: 712 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 238 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Limit values (Belgium, 12/2023)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 184 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 369 mg/m³.
Propan-1-ol	**Limit values (Belgium, 12/2023)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 250 mg/m³.
Butan-1-ol	**Limit values (Belgium, 12/2023)** Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 62 mg/m³.
Ethanol	**Limit values (Belgium, 12/2023)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1907 mg/m³.
Formaldehyde	**Limit values (Belgium, 12/2023)** C. Limit value - M: 0.3 ppm. Limit value - M: 0.38 mg/m³.
Maleic anhydride	**Limit values (Belgium, 12/2023)** TWA 8 hours: 0.0025 ppm. Form: vapour and aerosol. TWA 8 hours: 0.01 mg/m³. Form: vapour and aerosol.
n-Butyl acetate	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 241 mg/m³. Limit value 15 minutes: 723 mg/m³. Limit value 15 minutes: 150 ppm. Limit value 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Absorbed through skin. Limit value 8 hours: 375 mg/m³. Limit value 15 minutes: 568 mg/m³. Limit value 15 minutes: 150 ppm. Limit value 8 hours: 100 ppm.
Propan-1-ol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 15 minutes: 500 mg/m³. Limit value 8 hours: 300 mg/m³.
Butan-1-ol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 100 mg/m³. Limit value 15 minutes: 150 mg/m³.
Ethanol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 1000 mg/m³.
Formaldehyde	**Ministry of Labour and Social Policy and the Ministry of**

	Health - Ordinance No 10/2003 (OEL). (Bulgaria, 4/2024) Skin sensitiser. Limit value 15 minutes: 0.74 mg/m³. Limit value 8 hours: 0.37 mg/m³. Limit value 15 minutes: 0.5 ppm. Form: For the healthcare, funeral and embalming sectors. Limit value 8 hours: 0.62 mg/m³. Form: For the healthcare, funeral and embalming sectors. Limit value 15 minutes: 0.6 ppm. Limit value 8 hours: 0.3 ppm.
Maleic anhydride	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 1 mg/m³.
n-Butyl acetate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 723 mg/m³. STELV 15 minutes: 150 ppm. ELV 8 hours: 241 mg/m³. ELV 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 568 mg/m³. STELV 15 minutes: 150 ppm. ELV 8 hours: 375 mg/m³. ELV 8 hours: 100 ppm.
Propan-1-ol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 625 mg/m³. STELV 15 minutes: 250 ppm. ELV 8 hours: 500 mg/m³. ELV 8 hours: 200 ppm.
Butan-1-ol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** Absorbed through skin. STELV 15 minutes: 154 mg/m³. STELV 15 minutes: 50 ppm.
Ethanol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** ELV 8 hours: 1900 mg/m³. ELV 8 hours: 1000 ppm.
Formaldehyde	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** Carc 1B. Skin sensitiser. STELV 15 minutes: 0.74 mg/m³. STELV 15 minutes: 0.6 ppm. ELV 8 hours: 0.37 mg/m³. ELV 8 hours: 0.3 ppm.
Maleic anhydride	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** Skin sensitiser , Inhalation sensitiser. STELV 15 minutes: 0.2 ppm. ELV 8 hours: 0.41 mg/m³. STELV 15 minutes: 0.8 mg/m³. ELV 8 hours: 0.1 ppm.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**Department of labour inspection (Cyprus, 7/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
1-Methoxy 2-propanol	**Department of labour inspection (Cyprus, 7/2021)** Absorbed through skin. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³.
Formaldehyde	**EU OEL (Europe, 3/2024)** Skin sensitiser. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
n-Butyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** Absorbed through skin. TWA 8 hours: 270 mg/m³. TWA 8 hours: 72.09 ppm. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 146.84 ppm.
Propan-1-ol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 1000 mg/m³. STEL 15 minutes: 400 ppm.
Butan-1-ol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) [butanol]** TWA 8 hours: 300 mg/m³. TWA 8 hours: 97 ppm. STEL 15 minutes: 600 mg/m³. STEL 15 minutes: 194 ppm.
Ethanol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 1000 mg/m³. TWA 8 hours: 522 ppm. STEL 15 minutes: 3000 mg/m³. STEL 15 minutes: 1566 ppm.
Formaldehyde	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** Carc. Sensitiser. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm.
Maleic anhydride	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** Sensitiser. TWA 8 hours: 1 mg/m³. STEL 15 minutes: 2 mg/m³.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**Working Environment Authority (Denmark, 12/2024) [butylacetat, alle isomerer]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
1-Methoxy 2-propanol	**Working Environment Authority (Denmark, 12/2024) [1-methoxy-2-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 185 mg/m³. STEL 15 minutes: 568 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Working Environment Authority (Denmark, 12/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 1000 mg/m³. STEL 15 minutes: 400 ppm.
Butan-1-ol	**Working Environment Authority (Denmark, 12/2024) [butanol, alle isomere]** Absorbed through skin. CEIL: 50 ppm. CEIL: 150 mg/m³.
Ethanol	**Working Environment Authority (Denmark, 12/2024)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. STEL 15 minutes: 3800 mg/m³. STEL 15 minutes: 2000 ppm.
Formaldehyde	**Working Environment Authority (Denmark, 12/2024)** K. Skin sensitiser. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm.
Maleic anhydride	**Working Environment Authority (Denmark, 12/2024)** TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m³. STEL 15 minutes: 0.8 mg/m³. STEL 15 minutes: 0.2 ppm.
n-Butyl acetate	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
1-Methoxy 2-propanol	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** Absorbed through skin , Sensitiser. TWA 8 hours: 375 mg/m³. TWA 8 hours: 100 ppm. STEL 15 minutes: 568 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) [propanool]** TWA 8 hours: 350 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 600 mg/m³. STEL 15 minutes: 250 ppm.
Butan-1-ol	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** Absorbed through skin. TWA 8 hours: 45 mg/m³. TWA 8 hours: 15 ppm. STEL 5 minutes: 90 mg/m³. STEL 5 minutes: 30 ppm.
Ethanol	

	Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) TWA 8 hours: 1000 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm.
Formaldehyde	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** Carc. Sensitiser. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm. STEL 5 minutes: 0.6 ppm. STEL 5 minutes: 0.74 mg/m³. TWA 8 hours: 0.5 ppm. Form: In the healthcare, funeral and embalming sector. TWA 8 hours: 0.62 mg/m³. Form: In the healthcare, funeral and embalming sector.
Maleic anhydride	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** Sensitiser. TWA 8 hours: 1.2 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 0.6 ppm.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**EU OEL (Europe, 1/2022)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³.
Formaldehyde	**EU OEL (Europe, 3/2024)** Skin sensitiser. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
n-Butyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 150 ppm. TWA 8 hours: 720 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 960 mg/m³.
1-Methoxy 2-propanol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 370 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 560 mg/m³.
Propan-1-ol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 620 mg/m³.
Butan-1-ol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 150 mg/m³. STEL 15 minutes: 75 ppm. STEL 15 minutes: 230 mg/m³.
Ethanol	**Institute of Occupational Health, Ministry of Social Affairs**

	(Finland, 10/2021) TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. STEL 15 minutes: 1300 ppm. STEL 15 minutes: 2500 mg/m³.
Formaldehyde	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** CARC. Skin sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm.
Maleic anhydride	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.41 mg/m³. CEIL: 0.2 ppm. CEIL: 0.81 mg/m³.
n-Butyl acetate	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 241 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 150 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 723 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
1-Methoxy 2-propanol	**Ministry of Labor (France, 6/2024)** Absorbed through skin. TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 188 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 375 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 100 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
Propan-1-ol	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 200 ppm. Notes: Permissible limit values (circulars) TWA 8 hours: 500 mg/m³. Notes: Permissible limit values (circulars)
Butan-1-ol	**Ministry of Labor (France, 6/2024)** STEL 15 minutes: 50 ppm. Notes: Permissible limit values (circulars) STEL 15 minutes: 150 mg/m³. Notes: Permissible limit values (circulars)
Ethanol	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 1000 ppm. Notes: Permissible limit values (circulars) TWA 8 hours: 1900 mg/m³. Notes: Permissible limit values (circulars) STEL 15 minutes: 5000 ppm. Notes: Permissible limit values (circulars) STEL 15 minutes: 9500 mg/m³. Notes: Permissible limit values (circulars)
Formaldehyde	**Ministry of Labor (France, 6/2024)** Carc 1B, Muta 2. Skin sensitiser. TWA 8 hours: 0.3 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 0.6 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 0.74 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 0.37 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)

Maleic anhydride	**Ministry of Labor (France, 6/2024)** Sensitiser. STEL 15 minutes: 1 mg/m³. Notes: Permissible limit values (circulars)
n-Butyl acetate	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 300 mg/m³. TWA 8 hours: 62 ppm. PEAK 15 minutes: 600 mg/m³. PEAK 15 minutes: 124 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop C. TWA 8 hours: 100 ppm. PEAK 15 minutes: 200 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 480 mg/m³. PEAK 15 minutes: 960 mg/m³ 4 times per shift [Interval: 1 hour].
1-Methoxy 2-propanol	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 370 mg/m³. PEAK 15 minutes: 740 mg/m³. TWA 8 hours: 100 ppm. PEAK 15 minutes: 200 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop C. TWA 8 hours: 100 ppm. PEAK 15 minutes: 200 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 370 mg/m³. PEAK 15 minutes: 740 mg/m³ 4 times per shift [Interval: 1 hour].
Butan-1-ol	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 310 mg/m³. PEAK 15 minutes: 310 mg/m³. TWA 8 hours: 100 ppm. PEAK 15 minutes: 100 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop C. TWA 8 hours: 100 ppm. PEAK 15 minutes: 100 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 310 mg/m³. PEAK 15 minutes: 310 mg/m³ 4 times per shift [Interval: 1 hour].
Ethanol	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm. **DFG MAC-values list (Germany, 7/2024)** Carc 5, Muta 5, Develop C. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³ 4 times per shift [Interval: 1 hour].
Formaldehyde	**TRGS 900 OEL (Germany, 6/2024)** Skin sensitiser. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm. PEAK 15 minutes: 0.6 ppm. PEAK 15 minutes: 0.74 mg/m³. **DFG MAC-values list (Germany, 7/2024)** Carc 4, Muta 5, Develop C. Skin sensitiser. TWA 8 hours: 0.3 ppm. CEIL: 1 ml/m³. TWA 8 hours: 0.37 mg/m³. CEIL: 1.2 mg/m³. PEAK 15 minutes: 0.74 mg/m³ 4 times per shift [Interval: 1 hour]. PEAK 15 minutes: 0.6 ppm 4 times per shift [Interval: 1 hour].
Maleic anhydride	**TRGS 900 OEL (Germany, 6/2024)** Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.081 mg/m³. CEIL: 0.2025 mg/m³. TWA 8 hours: 0.02 ppm. CEIL: 0.05 ppm.

	PEAK 15 minutes: 0.081 mg/m³. PEAK 15 minutes: 0.02 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop C. Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.02 ppm. CEIL: 0.05 ml/m³. TWA 8 hours: 0.081 mg/m³. CEIL: 0.2 mg/m³. PEAK 15 minutes: 0.081 mg/m³ 4 times per shift [Interval: 1 hour]. PEAK 15 minutes: 0.02 ppm 4 times per shift [Interval: 1 hour].
n-Butyl acetate	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
1-Methoxy 2-propanol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 360 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 1080 mg/m³.
Propan-1-ol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 625 mg/m³.
Butan-1-ol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 300 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 300 mg/m³.
Ethanol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³.
Formaldehyde	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** Skin sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³.
Maleic anhydride	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 0.25 ppm. TWA 8 hours: 1 mg/m³.
n-Butyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** Sensitiser. TWA 8 hours: 241 mg/m³. PEAK 15 minutes: 723 mg/m³. PEAK 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** Absorbed through skin. TWA 8 hours: 375 mg/m³. PEAK 15 minutes: 568 mg/m³. PEAK 15 minutes: 150 ppm. TWA 8 hours: 100 ppm.
Butan-1-ol	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** Absorbed through skin. TWA 8 hours: 45 mg/m³.

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	PEAK 15 minutes: 90 mg/m³.
Ethanol	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** TWA 8 hours: 1900 mg/m³. PEAK 15 minutes: 3800 mg/m³. PEAK 15 minutes: 2000 ppm. TWA 8 hours: 1000 ppm.
Formaldehyde	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** k(1B). Absorbed through skin , Sensitiser. TWA 8 hours: 0.37 mg/m³. PEAK 15 minutes: 0.74 mg/m³. PEAK 15 minutes: 0.6 ppm. TWA 8 hours: 0.3 ppm.
Maleic anhydride	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** Sensitiser. TWA 8 hours: 0.08 mg/m³. PEAK 15 minutes: 0.08 mg/m³. PEAK 15 minutes: 0.2 ppm. TWA 8 hours: 0.2 ppm.
n-Butyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [bútýlasetat, allir ísómerar]** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
1-Methoxy 2-propanol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin. STEL 15 minutes: 568 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 185 mg/m³. TWA 8 hours: 50 ppm.
Propan-1-ol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin. TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm.
Butan-1-ol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin. STEL 15 minutes: 150 mg/m³. STEL 15 minutes: 50 ppm. TWA 8 hours: 80 mg/m³. TWA 8 hours: 25 ppm.
Ethanol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** TWA 8 hours: 1900 mg/m³. TWA 8 hours: 1000 ppm.
Formaldehyde	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** K. Absorbed through skin. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm.
Maleic anhydride	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Sensitiser. TWA 8 hours: 0.4 mg/m³. TWA 8 hours: 0.1 ppm.
n-Butyl acetate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 241 mg/m³. OELV 15 minutes: 150 ppm. OELV 15 minutes: 723 mg/m³.
1-Methoxy 2-propanol	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 100 ppm. OELV 8 hours: 375 mg/m³.

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	OELV 15 minutes: 150 ppm. OELV 15 minutes: 568 mg/m³.
Propan-1-ol	**NAOSH (Ireland, 4/2024)** Absorbed through skin. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 100 ppm.
Butan-1-ol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 20 ppm.
Ethanol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 15 minutes: 1000 ppm.
Formaldehyde	**NAOSH (Ireland, 4/2024)** Carc 1B. Sensitiser. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 0.3 ppm. OELV 15 minutes: 0.6 ppm. OELV 15 minutes: 0.738 mg/m³. OELV 8 hours: 0.37 mg/m³.
Maleic anhydride	**NAOSH (Ireland, 4/2024)** Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 0.01 ppm. Form: The Inhalable Fraction and Vapour note is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases..
n-Butyl acetate	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Short Term 15 minutes: 150 ppm. Short Term 15 minutes: 723 mg/m³. Limit value 8 hours: 50 ppm. Limit value 8 hours: 241 mg/m³.
1-Methoxy 2-propanol	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Absorbed through skin. Limit value 8 hours: 100 ppm. Limit value 8 hours: 375 mg/m³. Short Term 15 minutes: 150 ppm. Short Term 15 minutes: 568 mg/m³.
Formaldehyde	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Skin sensitiser. Short Term 15 minutes: 0.6 ppm. Short Term 15 minutes: 0.74 mg/m³. Limit value 8 hours: 0.3 ppm. Limit value 8 hours: 0.37 mg/m³.
n-Butyl acetate	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. STEL 15 minutes: 568 mg/m³. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 10 mg/m³.
Butan-1-ol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) [Butilspirti]** TWA 8 hours: 10 mg/m³.
Ethanol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 1000 mg/m³.
Formaldehyde	**EU OEL (Europe, 3/2024)** Skin sensitiser.

	STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
Maleic anhydride	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 1 mg/m³.
n-Butyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
1-Methoxy 2-propanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** Absorbed through skin. TWA 8 hours: 190 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 300 mg/m³. STEL 15 minutes: 75 ppm.
Propan-1-ol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) [propanolis, visi izomerai]** TWA 8 hours: 350 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 600 mg/m³. STEL 15 minutes: 250 ppm.
Butan-1-ol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** Absorbed through skin. TWA 8 hours: 45 mg/m³. TWA 8 hours: 15 ppm. CEIL: 90 mg/m³. CEIL: 30 ppm.
Ethanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 1000 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm.
Formaldehyde	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** Carc. Sensitiser. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³.
Maleic anhydride	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** Sensitiser. TWA 8 hours: 1.2 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 0.6 ppm.
n-Butyl acetate	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
1-Methoxy 2-propanol	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³.
Formaldehyde	**Grand-Duchy Regulation 2016. Carcinogens or mutagens agents. Annex III (Luxembourg, 3/2021)** Skin sensitiser. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³.

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	TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**EU OEL (Europe, 1/2022)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³.
Formaldehyde	**Ministry of Health (Malta, 4/2024)** Skin sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm.
n-Butyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** Absorbed through skin. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 563 mg/m³. TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm.
Ethanol	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** Carc B2. Absorbed through skin. TWA 8 hours: 260 mg/m³. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm. TWA 8 hours: 137 ppm.
Formaldehyde	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** Carc B1. Skin sensitiser. TWA 8 hours: 0.15 mg/m³. STEL 15 minutes: 0.5 mg/m³. STEL 15 minutes: 0.41 ppm. TWA 8 hours: 0.12 ppm.
n-Butyl acetate	**FOR-2011-12-06-1358 (Norway, 5/2024)** STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
1-Methoxy 2-propanol	**FOR-2011-12-06-1358 (Norway, 5/2024)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 180 mg/m³.
Propan-1-ol	**FOR-2011-12-06-1358 (Norway, 5/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 245 mg/m³.
Butan-1-ol	**FOR-2011-12-06-1358 (Norway, 5/2024)** Absorbed through skin. CEIL: 75 mg/m³. CEIL: 25 ppm.
Ethanol	**FOR-2011-12-06-1358 (Norway, 5/2024)** TWA 8 hours: 500 ppm. TWA 8 hours: 950 mg/m³.
Formaldehyde	**FOR-2011-12-06-1358 (Norway, 5/2024)** Carc. Sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. CEIL: 1 ppm.

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	CEIL: 1.2 mg/m³. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm.
Maleic anhydride	**FOR-2011-12-06-1358 (Norway, 5/2024)** Sensitiser. TWA 8 hours: 0.2 ppm. TWA 8 hours: 0.8 mg/m³.
n-Butyl acetate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** TWA 8 hours: 240 mg/m³. STEL 15 minutes: 720 mg/m³.
1-Methoxy 2-propanol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin. TWA 8 hours: 180 mg/m³. STEL 15 minutes: 360 mg/m³.
Propan-1-ol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin. TWA 8 hours: 200 mg/m³. STEL 15 minutes: 600 mg/m³.
Butan-1-ol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin. TWA 8 hours: 50 mg/m³. STEL 15 minutes: 150 mg/m³.
Ethanol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** TWA 8 hours: 1900 mg/m³.
Formaldehyde	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin , Skin sensitiser. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.74 mg/m³.
Maleic anhydride	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin. TWA 8 hours: 0.5 mg/m³. STEL 15 minutes: 1 mg/m³.
n-Butyl acetate	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.

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1-Methoxy 2-propanol	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³.
Propan-1-ol	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 100 ppm.
Butan-1-ol	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 20 ppm.
Ethanol	**Portuguese Institute of Quality (Portugal, 11/2014)** A3. STEL 15 minutes: 1000 ppm.
Formaldehyde	**Portuguese Institute of Quality (Portugal, 11/2014)** A2. Sensitiser. CEIL: 0.3 ppm. **Decree-Law 301/2000 - Occupational exposure limits for carcinogenic and mutagenic agents (Portugal, 12/2024)** Skin sensitiser. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
Maleic anhydride	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapor.
n-Butyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 241 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 723 mg/m³. Short term 15 minutes: 150 ppm.
1-Methoxy 2-propanol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** Absorbed through skin. VLA 8 hours: 375 mg/m³. VLA 8 hours: 100 ppm. Short term 15 minutes: 568 mg/m³. Short term 15 minutes: 150 ppm.
Propan-1-ol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 200 mg/m³. VLA 8 hours: 81 ppm. Short term 15 minutes: 500 mg/m³. Short term 15 minutes: 203 ppm.
Butan-1-ol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 100 mg/m³. VLA 8 hours: 33 ppm. Short term 15 minutes: 200 mg/m³. Short term 15 minutes: 66 ppm.
Ethanol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 1900 mg/m³. VLA 8 hours: 1000 ppm. Short term 15 minutes: 9500 mg/m³. Short term 15 minutes: 5000 ppm.
Formaldehyde	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** C2. Skin sensitiser. VLA 8 hours: 0.37 mg/m³. VLA 8 hours: 0.3 ppm. Short term 15 minutes: 0.74 mg/m³.

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	Short term 15 minutes: 0.6 ppm.
Maleic anhydride	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 1 mg/m³. VLA 8 hours: 0.25 ppm. Short term 15 minutes: 3 mg/m³. Short term 15 minutes: 0.75 ppm.
n-Butyl acetate	**Government regulation SR c. 355/2006 (Slovakia, 6/2024) [butylacetáty]** Inhalation sensitiser. TWA 8 hours: 241 mg/m³ (Butyl acetates). TWA 8 hours: 50 ppm (Butyl acetates). STEL 15 minutes: 723 mg/m³ (Butyl acetates). STEL 15 minutes: 150 ppm (Butyl acetates).
1-Methoxy 2-propanol	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 375 mg/m³. TWA 8 hours: 100 ppm. STEL 15 minutes: 568 mg/m³. STEL 15 minutes: 150 ppm.
Butan-1-ol	**Government regulation SR c. 355/2006 (Slovakia, 6/2024) [butylalkoholy]** Inhalation sensitiser. TWA 8 hours: 310 mg/m³ (Butyl alkohols). TWA 8 hours: 100 ppm (Butyl alkohols).
Ethanol	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Inhalation sensitiser. TWA 8 hours: 960 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1920 mg/m³. STEL 15 minutes: 1000 ppm.
Formaldehyde	**Government regulation SR c. 356/2006 (Slovakia, 9/2020)** Carc 1B. Sensitiser. STEL 15 minutes: 0.74 mg/m³. STEL 15 minutes: 0.6 ppm. Technical guidance value 8 hours: 0.37 mg/m³. Technical guidance value 8 hours: 0.3 ppm.
Maleic anhydride	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Sensitiser , Inhalation sensitiser. TWA 8 hours: 0.41 mg/m³. TWA 8 hours: 0.1 ppm.
n-Butyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 723 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 150 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
1-Methoxy 2-propanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** Absorbed through skin. TWA 8 hours: 375 mg/m³. TWA 8 hours: 100 ppm. KTV 15 minutes: 568 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 150 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Butan-1-ol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 310 mg/m³. TWA 8 hours: 100 ppm. KTV 15 minutes: 310 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].

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	KTV 15 minutes: 100 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Ethanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 960 mg/m³. TWA 8 hours: 500 ppm. KTV 15 minutes: 1920 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 1000 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Formaldehyde	**Regulation on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work (Slovenia, 4/2024)** Carc 1B, Muta 2. Absorbed through skin , Skin sensitiser. Peak 15 minutes: 0.6 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. Peak 15 minutes: 0.74 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³.
Maleic anhydride	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 0.41 mg/m³. TWA 8 hours: 0.1 ppm. KTV 15 minutes: 0.41 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 0.1 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
n-Butyl acetate	**National institute of occupational safety and health (Spain, 1/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
1-Methoxy 2-propanol	**National institute of occupational safety and health (Spain, 1/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 375 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³.
Propan-1-ol	**National institute of occupational safety and health (Spain, 1/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1000 mg/m³.
Butan-1-ol	**National institute of occupational safety and health (Spain, 1/2024)** STEL 15 minutes: 50 ppm. STEL 15 minutes: 154 mg/m³. TWA 8 hours: 20 ppm. TWA 8 hours: 61 mg/m³.
Ethanol	**National institute of occupational safety and health (Spain, 1/2024)** STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1910 mg/m³.
Formaldehyde	**National institute of occupational safety and health (Spain, 1/2024)** Carc 1B. Skin sensitiser. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³. TWA 8 hours: 0.37 mg/m³. TWA 8 hours: 0.3 ppm.
Maleic anhydride	**National institute of occupational safety and health (Spain,**

	1/2024) Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m³.
n-Butyl acetate	**Work environment authority Regulation 2018:1 (Sweden, 11/2022) [butyl acetate]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
1-Methoxy 2-propanol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** Absorbed through skin. STEL 15 minutes: 150 ppm. STEL 15 minutes: 568 mg/m³. TWA 8 hours: 190 mg/m³. TWA 8 hours: 50 ppm.
Propan-1-ol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 150 ppm. TWA 8 hours: 350 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 600 mg/m³.
Butan-1-ol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** Absorbed through skin. TWA 8 hours: 15 ppm. TWA 8 hours: 45 mg/m³. STEL 15 minutes: 30 ppm. STEL 15 minutes: 90 mg/m³.
Ethanol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 500 ppm. TWA 8 hours: 1000 mg/m³. STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1900 mg/m³.
Formaldehyde	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** Carc. Absorbed through skin , Sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³.
Maleic anhydride	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** Sensitiser. TWA 8 hours: 0.05 ppm. TWA 8 hours: 0.2 mg/m³. STEL 15 minutes: 0.1 ppm. STEL 15 minutes: 0.4 mg/m³.
n-Butyl acetate	**SUVA (Switzerland, 1/2025)** TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 720 mg/m³.
1-Methoxy 2-propanol	**SUVA (Switzerland, 1/2025)** TWA 8 hours: 100 ppm. TWA 8 hours: 360 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 720 mg/m³.
Propan-1-ol	**SUVA (Switzerland, 1/2025)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³.
Butan-1-ol	**SUVA (Switzerland, 1/2025)** TWA 8 hours: 100 ppm. TWA 8 hours: 310 mg/m³. STEL 15 minutes: 100 ppm.

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	STEL 15 minutes: 310 mg/m³.
Ethanol	**SUVA (Switzerland, 1/2025)** Carc 1A, Repr 1A. TWA 8 hours: 500 ppm. TWA 8 hours: 960 mg/m³. STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1920 mg/m³.
Formaldehyde	**SUVA (Switzerland, 1/2025)** Carc 1B. Sensitiser. TWA 8 hours: 0.3 ppm. TWA 8 hours: 0.37 mg/m³. STEL 15 minutes: 0.6 ppm. STEL 15 minutes: 0.74 mg/m³.
Maleic anhydride	**SUVA (Switzerland, 1/2025)** Sensitiser. TWA 8 hours: 0.1 ppm. Form: vapour and aerosols. TWA 8 hours: 0.4 mg/m³. Form: vapour and aerosols. STEL 15 minutes: 0.1 ppm. Form: vapour and aerosols. STEL 15 minutes: 0.4 mg/m³. Form: vapour and aerosols.
n-Butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
1-Methoxy 2-propanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 560 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 375 mg/m³. TWA 8 hours: 100 ppm.
Propan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 625 mg/m³. STEL 15 minutes: 250 ppm. TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm.
Butan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 154 mg/m³. STEL 15 minutes: 50 ppm.
Ethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1920 mg/m³.
Formaldehyde	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Carc. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 2 ppm. TWA 8 hours: 2 ppm. TWA 8 hours: 2.5 mg/m³.
Maleic anhydride	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Inhalation sensitiser. STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³.

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	

No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
1-Methoxy 2-propanol	**DFG BEI-values list (Germany, 7/2024)** BEI: 15 mg/l, propylene glycol 1-methyl ether [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 10/2024)** BEI: 15 mg/l, 1-methoxypropan-2-ol [in urine]. Sampling time: end of exposure or end of shift.
Butan-1-ol	**DFG BEI-values list (Germany, 7/2024)** BEI: 2 mg/g creatinine, 1-butanol [in urine]. Sampling time: at the beginning of the next shift. BEI: 10 mg/g creatinine, 1-butanol [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 10/2024)** BEI: 2 mg/g creatinine, butan-1-ol (butanol-1) (after hydrolysis) [in urine]. Sampling time: at the beginning of the next shift. BEI: 10 mg/g creatinine, butan-1-ol (butanol-1) (after hydrolysis) [in urine]. Sampling time: end of exposure or end of shift.
No exposure indices known.	
Butan-1-ol	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** BEI: 15 µmol/mmol creatinine, n-butyl-alcohol (after hydrolysis) [in urine]. Sampling time: at the end of the shift. BEI: 10 mg/g creatinine, n-butyl-alcohol (after hydrolysis) [in urine]. Sampling time: at the end of the shift. BEI: 3 µmol/mmol creatinine, n-butyl-alcohol (after hydrolysis) [in urine]. Sampling time: before the next shift. BEI: 2 mg/g creatinine, n-butyl-alcohol (after hydrolysis) [in urine]. Sampling time: before the next shift.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
Butan-1-ol	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** BLV: 15.34 µmol/mmol creatinine, as n-butyl alcohol [in urine]. Sampling time: at the end of exposure or work shift. BLV: 10 mg/g creatinine, as n-butyl alcohol [in urine]. Sampling time: at the end of exposure or work shift. BLV: 3.13 µmol/mmol creatinine, as n-butyl alcohol [in urine]. Sampling time: before the next work shift. BLV: 2 mg/g creatinine, as n-butyl alcohol [in urine]. Sampling time: before the next work shift.

1-Methoxy 2-propanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** BAT: 15 mg/l, 1-methoxypropan-2-ol [in urine]. Sampling time: at the end of the work shift.
Butan-1-ol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** BAT: 10 mg/g creatinine, 1-butanol (after hydrolysis) [in urine]. Sampling time: at the end of the work shift. BAT: 2 mg/g creatinine, 1-butanol (after hydrolysis) [in urine]. Sampling time: before the work shift.
No exposure indices known.	
No exposure indices known.	
1-Methoxy 2-propanol	**SUVA (Switzerland, 1/2025)** BEI: 20 mg/l, 1-methoxypropanol-2 [in urine]. Sampling time: immediately after exposure or after working hours. BEI: 221.9 µmol/l, 1-methoxypropanol-2 [in urine]. Sampling time: immediately after exposure or after working hours.
Butan-1-ol	**SUVA (Switzerland, 1/2025)** BEI: 2 mg/g creatinine, n-butanol [in urine]. Sampling time: before the next shift or 4pm.
No exposure indices known.	

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
n-Butyl acetate	**DNEL - General population - Long term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 3.4 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Dermal** 6 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 7 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 11 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 12 mg/m³ Effects: Systemic

	DNEL - General population - Long term - Inhalation 35.7 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 48 mg/m³ Effects: Systemic **DNEL - General population - Short term - Inhalation** 300 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 300 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 300 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Systemic
1-Methoxy 2-propanol	**DNEL - General population - Long term - Oral** 33 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 43.9 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 78 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 183 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 369 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 553.5 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 553.5 mg/m³ Effects: Systemic
Propan-1-ol	**DNEL - General population - Short term - Inhalation** 518 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1037 mg/m³ Effects: Systemic
Butan-1-ol	**DNEL - General population - Long term - Oral**

	1.5625 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 3.125 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 55.357 mg/m³ Effects: Systemic **DNEL - General population - Long term - Inhalation** 155 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 310 mg/m³ Effects: Local
Ethanol	**DNEL - Workers - Long term - Inhalation** 380 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 87 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 114 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 206 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 343 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 950 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 1900 mg/m³ Effects: Local
Formaldehyde	**DNEL - General population - Long term - Dermal** 12 µg/cm² Effects: Local **DNEL - Workers - Long term - Dermal** 37 µg/cm² Effects: Local **DNEL - General population - Long term - Inhalation** 0.1 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 0.375 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 0.75 mg/m³

	Effects: Local **DNEL - General population - Long term - Inhalation** 3.2 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 4.1 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 9 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 102 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 240 mg/kg bw/day Effects: Systemic
Maleic anhydride	**DNEL - General population - Long term - Inhalation** 0.05 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 0.06 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.08 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 0.081 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 0.081 mg/m³ Effects: Systemic **DNEL - General population - Short term - Oral** 0.1 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Dermal** 0.1 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 0.1 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 0.2 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.2 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Inhalation** 0.2 mg/m³ Effects: Local

DNEL - Workers - Short term - Inhalation
0.2 mg/m³
Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Filter type: A

Filter type (spray application): A P

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
Ethanol	78.29	172.9	
Propan-1-ol	97	206.6	

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.4% (n-butyl acetate)
Upper: 19% (ethanol)

Flash point : Closed cup: 23°C (73.4°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
1-Methoxy 2-propanol	270	518	
Butan-1-ol	355	671	EU A.15

Decomposition temperature : Not available.

pH : Not applicable.

Viscosity : Not available.

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Ethanol	42.94865	5.7				
Propan-1-ol	21.15146	2.8				

Relative density : Not available.

Density : 1 g/cm³

Vapour density : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

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 : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

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

Product/ingredient name	Result
n-Butyl acetate	**Rat - Oral - LD50** 10760 mg/kg EU **Rabbit - Dermal - LD50** 14112 mg/kg **Rat - Inhalation - LC50 Vapour** 0.74 mg/l [4 hours]
1-Methoxy 2-propanol	**Rabbit - Dermal - LD50** 13 g/kg **Rat - Oral - LD50** 6600 mg/kg Toxic effects: Brain and Coverings - Other degenerative changes Behavioral - General anesthetic Lung, Thorax, or Respiration - Dyspnea
Urea-formaldehyde-polymer	**Rat - Oral - LD50** >5 g/kg Toxic effects: Olfaction - Other changes Behavioral - Somnolence (general depressed activity) Behavioral - Food intake (animal) **Rabbit - Dermal - LD50** >5 g/kg Toxic effects: Skin After systemic exposure - Dermatitis, other
Propan-1-ol	**Rat - Oral - LD50** 1870 mg/kg **Rabbit - Dermal - LD50** 5040 mg/kg
Butan-1-ol	**Rat - Oral - LD50** 790 mg/kg Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes **Rabbit - Dermal - LD50**

	3400 mg/kg **Rat - Inhalation - LC50 Vapour** 24000 mg/m³ [4 hours]
Ethanol	**Rat - Oral - LD50** 7 g/kg **Rat - Inhalation - LC50 Vapour** 124700 mg/m³ [4 hours]
Formaldehyde	**Rat - Oral - LD50** 100 mg/kg **Rabbit - Dermal - LD50** 270 mg/kg **Rat - Inhalation - LC50 Gas.** 250 ppm [4 hours]
Maleic anhydride	**Rat - Oral - LD50** 400 mg/kg **Rabbit - Dermal - LD50** 2620 mg/kg

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
NICOSIT 1340-11	45117.1	N/A	N/A	N/A	N/A
n-Butyl acetate	10760	14112	N/A	N/A	N/A
1-Methoxy 2-propanol	6600	13000	N/A	N/A	N/A
Propan-1-ol	N/A	5040	N/A	N/A	N/A
Butan-1-ol	790	3400	N/A	24	N/A
Ethanol	7000	N/A	N/A	124.7	N/A
Formaldehyde	100	300	700	N/A	N/A
Maleic anhydride	400	2620	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
n-Butyl acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
1-Methoxy 2-propanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
Propan-1-ol	**Human - Skin - Mild irritant** Duration of treatment/exposure: 47 hours Amount/concentration applied: 100 % **Human - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 % **Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
Butan-1-ol	**Rabbit - Skin - Moderate irritant**

	Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Ethanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 400 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Formaldehyde	**Human - Skin - Mild irritant** Duration of treatment/exposure: 72 hours Amount/concentration applied: 150 ug l **Human - Skin - Severe irritant** Amount/concentration applied: 0.01 % **Rabbit - Skin - Mild irritant** Amount/concentration applied: 540 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 50 mg **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 0.8 % **Mouse - Skin - Moderate irritant** Amount/concentration applied: 7 % **Rat - Skin - Moderate irritant** Amount/concentration applied: 7 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
n-Butyl acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
1-Methoxy 2-propanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
Urea-formaldehyde-polymer	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 uL
Propan-1-ol	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Butan-1-ol	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 0.005 Ml **Rabbit - Eyes - Severe irritant**

	Amount/concentration applied: 1.62 mg
Ethanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 0.066666667 minutes Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 uL **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 500 mg **Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 1 hours Amount/concentration applied: 50 pph
Formaldehyde	**Human - Eyes - Mild irritant** Duration of treatment/exposure: 6 minutes Amount/concentration applied: 1 ppm **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 37 % **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 10 mg **Mouse - Eyes - Moderate irritant** Amount/concentration applied: 3 %
Maleic anhydride	**Rabbit - Eyes - Severe irritant** Amount/concentration applied: 1 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
n-Butyl acetate	STOT SE 3, H336 (Narcotic effects)
1-Methoxy 2-propanol	STOT SE 3, H336 (Narcotic effects)
Propan-1-ol	STOT SE 3, H336 (Narcotic effects)
Butan-1-ol	STOT SE 3, H335 (Respiratory tract irritation) STOT SE 3, H336 (Narcotic effects)
Formaldehyde	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Maleic anhydride	STOT RE 1, H372 (respiratory system) (inhalation)

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : No known significant effects or critical hazards.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

SECTION 11: Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
n-Butyl acetate	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g 18000 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina* 32 mg/l [48 hours] Effect: Mortality
Propan-1-ol	**Acute - LC50 - Marine water** Fish - Bleak - *Alburnus alburnus* Size: 8 to 10 cm 3800000 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Fresh water** Crustaceans - Scud - *Gammarus pulex* 1000000 µg/l [48 hours] Effect: Mortality **Acute - EC50 - Fresh water** Algae - Green algae - *Selenastrum sp.* 4480000 µg/l [96 hours]
Butan-1-ol	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 33 days; Size: 20.6 mm; Weight: 0.119 g 1730000 µg/l [96 hours] Effect: Mortality

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna*
Age: 6 to 24 hours
1983000 µg/l [48 hours]
Effect: Intoxication

Ethanol

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna*
2000 µg/l [48 hours]
Effect: Physiology

Acute - LC50 - Fresh water
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
42000 µg/l [4 days]
Effect: Mortality

Acute - EC50 - Marine water
Algae - Green algae - *Ulva pertusa*
17.921 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Marine water
Algae - Green algae - *Ulva pertusa*
4.995 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Fresh water
Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae
Age: 3 days
0.375 µl/l [12 weeks]
Effect: Morphology

Chronic - NOEC - Fresh water
Daphnia - Water flea - *Daphnia magna* - Neonate
Age: <24 hours
100 µl/l [21 days]
Effect: Mortality

Formaldehyde

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia pulex* - Neonate
Age: <24 hours
5800 µg/l [48 hours]
Effect: Intoxication

Acute - EC50 - Marine water
Algae - Green algae - *Ulva pertusa*
0.788 mg/l [96 hours]
Effect: Reproduction

Acute - LC50 - Fresh water
US EPA
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
1.41 ppm [96 hours]
Effect: Mortality

Chronic - NOEC - Fresh water
Fish - Chinook salmon - *Oncorhynchus tshawytscha* - Egg
953.9 ppm [43 days]
Effect: Mortality

Chronic - NOEC - Marine water
Algae - Haptophyte - *Isochrysis galbana* - Exponential growth phase
Age: 4 to 5 days
0.005 mg/l [96 hours]

	Effect: Population
Maleic anhydride	**Acute - LC50 - Fresh water** Fish - Western mosquitofish - *Gambusia affinis* - Adult 230000 µg/l [96 hours] Effect: Mortality

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-Butyl acetate	2.3	-	Low
1-Methoxy 2-propanol	<1	-	Low
Propan-1-ol	0.2	-	Low
Butan-1-ol	1	-	Low
Ethanol	-0.35	-	Low
Formaldehyde	0.35	-	Low
Maleic anhydride	-2.78	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
n-Butyl acetate	1.5	33.2139
1-Methoxy 2-propanol	1	10.447
Propan-1-ol	0.48	3.03193
Butan-1-ol	0.51	3.22078
Ethanol	0.2	1.59008
Formaldehyde	0.44	2.72646
Maleic anhydride	1.1	11.4841

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
n-Butyl acetate	No	No	No	No	No	No	No
Urea, polymer with formaldehyde, butylated	No	No	No	No	No	No	No
1-Methoxy 2-propanol	No	No	No	No	No	No	No
Urea-formaldehyde-polymer	No	No	No	No	No	No	No
Propan-1-ol	No	No	No	No	No	No	No
Butan-1-ol	No	No	No	No	No	No	No
Ethanol	No	No	No	No	No	No	No
Formaldehyde	No	No	No	No	No	No	No
Maleic anhydride	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-Butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
Urea, polymer with formaldehyde, butylated	No	N/A	N/A	No	N/A	N/A	N/A
1-Methoxy 2-propanol	No	N/A	N/A	No	N/A	N/A	N/A
Urea-formaldehyde-polymer	No	N/A	N/A	No	N/A	N/A	N/A
Propan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
Butan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
Ethanol	No	N/A	N/A	No	N/A	N/A	N/A
Formaldehyde	N/A	N/A	N/A	Yes	N/A	N/A	N/A
Maleic anhydride	N/A	N/A	N/A	Yes	N/A	N/A	N/A

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-Butyl acetate	No	No	No	No	No	No	No
Urea, polymer with formaldehyde, butylated	No	No	No	No	No	No	No
1-Methoxy 2-propanol	No	No	No	No	No	No	No
Urea-formaldehyde-polymer	No	No	No	No	No	No	No
Propan-1-ol	No	No	No	No	No	No	No
Butan-1-ol	No	No	No	No	No	No	No
Ethanol	No	No	No	No	No	No	No
Formaldehyde	No	No	No	No	No	No	No
Maleic anhydride	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : Avoid release to the environment. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

European waste catalogue (EWC) : 08.01.11

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Tunnel code** (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
NICOSIT 1340-11	≥90	3
Formaldehyde	<0.1	72

Labelling :

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : 3910 - Silicones.

Total percentage of synthetic polymer microparticles : 3%

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Other EU regulations

SECTION 15: Regulatory information

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

Austria

VbF class : Category 3

Limitation of the use of organic solvents : Permitted.

Belgium

Czech Republic

Storage code : II

Denmark

Fire class : II-1

Executive Order No. 1795/2015

Ingredient name	Annex I Section A	Annex I Section B
Ethylbenzene	Listed	-

MAL-code : 3-1

Protection based on MAL : **According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:**

General: Gloves must be worn for all work that may result in soiling. Apron/ coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, respiratory protection with air supply and arm protectors/apron/coveralls/protective clothing must be worn as appropriate or as instructed.

MAL-code: 3-1

Application: When spraying in new* booths if the operator is outside the spray zone. When using scraper or knife, brush, roller, etc, for pre- and post-treatments in cabins or booths of the existing* facility type, if the operator is inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin. During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents.

- Air-supplied half mask and eye protection must be worn.

When spraying in existing* spray booths, if the operator is outside the spray zone.

- Air-supplied full mask and arm protectors must be worn.

During non-atomising spraying in existing* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone.

- Air-supplied full mask must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, coveralls and hood must be worn.

Drying: Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

Polishing: When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

Caution The regulations contain other stipulations in addition to the above.

*See Regulations.

Low-boiling liquids : This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed.

Restrictions on use : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.

List of undesirable substances : Not listed

Carcinogenic waste : Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.

Finland

France

Social Security Code, Articles L 461-1 to L 461-7 :

n-Butyl acetate	RG 84
1-Methoxy 2-propanol	RG 84
Propan-1-ol	RG 84
Butan-1-ol	RG 84
Ethanol	RG 84
Formaldehyde	RG 43, RG 43bis, RG 84
Maleic anhydride	RG 66

Reinforced medical surveillance : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

Germany

Storage class (TRGS 510) : 3

Hazardous incident ordinance

SECTION 15: Regulatory information

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
P5c	1.2.5.3

Hazard class for water : 1

Technical instruction on air quality control (TA Luft)

Number [Class]	Description	%
5.2.1 5.2.5 5.2.5 [I] 5.2.7.1.1 [Formaldehyde]	Total dust Organic substances Organic substances Carcinogenic substances	38.3 61.7 40.9 0.051

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

Ministry of Social Affairs and Employment (SZW) - Carcinogenic substances and processes, mutagenic or reprotoxic substances

Ingredient name	Carcinogen	Mutagen	Reproductive toxicity - Fertility	Reproductive toxicity - Development	Harmful via breastfeeding
ethanol xyleen	Listed -	- -	Fertility 1A -	Development 1A Development 2	Listed -

Water Discharge Policy (ABM) : Z(1) Non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/ bioacumulative potential/ toxicity or persistence). Decontamination effort: Z

Norway

Sweden

Flammable liquid class (SRVFS 2005:10) : 2a

Switzerland

VOC content : VOC (w/w): 46.6%

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Eye Dam. 1, H318	Calculation method
STOT SE 3, H336	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic 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.
H319	Causes serious eye irritation.
H331	Toxic 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.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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SECTION 16: Other information

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.