

SAFETY DATA SHEET



SUPREMO KLARLACK 3990-15 - All variants

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

1.1 Product identifier

Product name : SUPREMO KLARLACK 3990-15 - All variants

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. 2, H225

Eye Irrit. 2, H319

Skin Sens. 1, H317

Repr. 2, H361d

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 : H225 - Highly flammable liquid and vapour.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H361d - Suspected of damaging the unborn child.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.

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

Date of issue/Date of revision : 24/02/2026 **Date of previous issue** : No previous validation **Version** : 1 1/52

SUPREMO KLARLACK 3990-15 - All variants

Label No : 130367

SECTION 2: Hazards identification

Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: Contains: Ethyl acetate; n-Butyl acetate; Toluene and Methyl methacrylate
Supplemental label elements	:
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
Ethyl acetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	≥25 - ≤50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
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]
Toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304	-	[1] [2]
2-Methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≤5	Flam. Liq. 3, H226	-	[2]
2-Butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	≤3	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
Methyl methacrylate	REACH #: 01-2119452498-28 EC: 201-297-1 CAS: 80-62-6 Index: 607-035-00-6	≤0.3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	-	[1] [2]

SECTION 3: Composition/information on ingredients

Mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly(oxyethylene)	EC: 400-830-7 Index: 607-176-00-3	≤0.3	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
Fatty acids, C14-18 and C16-18-unsatd., maleated	REACH #: 01-2119976378-19 EC: 288-306-2 CAS: 85711-46-2	≤0.3	Skin Irrit. 2, H315 Skin Sens. 1, H317	-	[1]
Maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0.0015	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

- : 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. Get medical attention.

Inhalation

- : 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. Get medical attention. If necessary, call a poison center or physician. 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.

Skin contact

- : Wash with plenty of 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : 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. Get medical attention. If necessary, call a poison center or 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 or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, 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** : Highly 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.

SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

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. Avoid breathing 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

SECTION 7: Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. 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.
- 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
Ethyl acetate	Regulation on Limit Values - MAC (Austria, 12/2024) TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m ³ . PEAK 15 minutes: 1468 mg/m ³ 4 times per shift. PEAK 15 minutes: 400 ppm 4 times per shift.
n-Butyl acetate	Regulation on Limit Values - MAC (Austria, 12/2024) [Butylacetat alle Isomeren außer tert-Butylacet] CEIL: 480 mg/m ³ . CEIL: 100 ppm. TWA 8 hours: 241 mg/m ³ . TWA 8 hours: 50 ppm.
Toluene	Regulation on Limit Values - MAC (Austria, 12/2024) d.

SECTION 8: Exposure controls/personal protection

2-Methoxy-1-methylethyl acetate	<p>Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 190 mg/m³. PEAK 15 minutes: 100 ppm 4 times per shift. PEAK 15 minutes: 380 mg/m³ 4 times per shift.</p> <p>Regulation on Limit Values - MAC (Austria, 12/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. CEIL 5 minutes: 100 ppm 8 times per shift. CEIL 5 minutes: 550 mg/m³ 8 times per shift.</p>
2-Butoxyethanol	<p>Regulation on Limit Values - MAC (Austria, 12/2024) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. PEAK 30 minutes: 40 ppm 4 times per shift. PEAK 30 minutes: 200 mg/m³ 4 times per shift.</p>
Methyl methacrylate	<p>Regulation on Limit Values - MAC (Austria, 12/2024) Skin sensitiser. TWA 8 hours: 50 ppm. TWA 8 hours: 210 mg/m³. CEIL 5 minutes: 100 ppm 8 times per shift. CEIL 5 minutes: 420 mg/m³ 8 times per shift.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Limit values (Belgium, 12/2023) TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Limit values (Belgium, 12/2023) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 77 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Limit values (Belgium, 12/2023) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Limit values (Belgium, 12/2023) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>Limit values (Belgium, 12/2023) TWA 8 hours: 50 ppm. TWA 8 hours: 208 mg/m³. STEL 15 minutes: 416 mg/m³. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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.</p>

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Ethyl acetate	<p>Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) Limit value 8 hours: 734 mg/m³. Limit value 15 minutes: 400 ppm. Limit value 15 minutes: 1468 mg/m³. Limit value 8 hours: 200 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) Absorbed through skin. Limit value 15 minutes: 384 mg/m³. Limit value 8 hours: 192 mg/m³. Limit value 15 minutes: 100 ppm. Limit value 8 hours: 50 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>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: 275 mg/m³. Limit value 15 minutes: 550 mg/m³. Limit value 15 minutes: 100 ppm. Limit value 8 hours: 50 ppm.</p>
2-Butoxyethanol	<p>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: 98 mg/m³. Limit value 15 minutes: 246 mg/m³. Limit value 15 minutes: 50 ppm. Limit value 8 hours: 20 ppm.</p>
Methyl methacrylate	<p>Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) Limit value 8 hours: 50 ppm. Limit value 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) STELV 15 minutes: 400 ppm. ELV 8 hours: 200 ppm. STELV 15 minutes: 1468 mg/m³. ELV 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>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: 384 mg/m³. STELV 15 minutes: 100 ppm. ELV 8 hours: 192 mg/m³. ELV 8 hours: 50 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Ordinance on the protection of workers from exposure to</p>

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2-Butoxyethanol	<p>hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) Absorbed through skin. STELV 15 minutes: 550 mg/m³. STELV 15 minutes: 100 ppm. ELV 8 hours: 275 mg/m³. ELV 8 hours: 50 ppm.</p>
Methyl methacrylate	<p>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: 246 mg/m³. STELV 15 minutes: 50 ppm. ELV 8 hours: 98 mg/m³. ELV 8 hours: 20 ppm.</p>
Maleic anhydride	<p>Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) Absorbed through skin , Skin sensitiser. STELV 15 minutes: 100 ppm. ELV 8 hours: 50 ppm.</p> <p>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.</p>
Ethyl acetate	<p>Department of labour inspection (Cyprus, 7/2021) STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Department of labour inspection (Cyprus, 7/2021) Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Department of labour inspection (Cyprus, 7/2021) Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³.</p>
2-Butoxyethanol	<p>Department of labour inspection (Cyprus, 7/2021) Absorbed through skin. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³.</p>
Methyl methacrylate	<p>Department of labour inspection (Cyprus, 7/2021) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>

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Ethyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) TWA 8 hours: 700 mg/m ³ . TWA 8 hours: 191.1 ppm. STEL 15 minutes: 900 mg/m ³ . STEL 15 minutes: 245.7 ppm.
n-Butyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) TWA 8 hours: 241 mg/m ³ . STEL 15 minutes: 723 mg/m ³ . STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Toluene	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Absorbed through skin. TWA 8 hours: 192 mg/m ³ . TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m ³ . STEL 15 minutes: 100 ppm.
2-Methoxy-1-methylethyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Absorbed through skin. TWA 8 hours: 275 mg/m ³ . TWA 8 hours: 50 ppm. STEL 15 minutes: 550 mg/m ³ . STEL 15 minutes: 100 ppm.
2-Butoxyethanol	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Absorbed through skin. TWA 8 hours: 98 mg/m ³ . TWA 8 hours: 20 ppm. STEL 15 minutes: 200 mg/m ³ . STEL 15 minutes: 40.7 ppm.
Methyl methacrylate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Sensitiser. TWA 8 hours: 50 mg/m ³ . TWA 8 hours: 12 ppm. STEL 15 minutes: 150 mg/m ³ . STEL 15 minutes: 36 ppm.
Maleic anhydride	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Sensitiser. TWA 8 hours: 1 mg/m ³ . STEL 15 minutes: 2 mg/m ³ .
Ethyl acetate	Working Environment Authority (Denmark, 12/2024) TWA 8 hours: 150 ppm. TWA 8 hours: 540 mg/m ³ . STEL 15 minutes: 1468 mg/m ³ . STEL 15 minutes: 400 ppm.
n-Butyl acetate	Working Environment Authority (Denmark, 12/2024) [butylacetat, alle isomerer] TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m ³ . STEL 15 minutes: 723 mg/m ³ . STEL 15 minutes: 150 ppm.
Toluene	Working Environment Authority (Denmark, 12/2024) Absorbed through skin. TWA 8 hours: 25 ppm. TWA 8 hours: 94 mg/m ³ . STEL 15 minutes: 384 mg/m ³ . STEL 15 minutes: 100 ppm.
2-Methoxy-1-methylethyl acetate	Working Environment Authority (Denmark, 12/2024) [2-methoxy-1-methylethylacetat] Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m ³ . STEL 15 minutes: 550 mg/m ³ . STEL 15 minutes: 100 ppm.

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2-Butoxyethanol	<p>Working Environment Authority (Denmark, 12/2024) Absorbed through skin.</p> <p>TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 246 mg/m³. STEL 15 minutes: 50 ppm.</p>
Methyl methacrylate	<p>Working Environment Authority (Denmark, 12/2024) Absorbed through skin.</p> <p>TWA 8 hours: 25 ppm. TWA 8 hours: 102 mg/m³. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>Working Environment Authority (Denmark, 12/2024)</p> <p>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.</p>
Ethyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)</p> <p>TWA 8 hours: 500 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 1100 mg/m³. STEL 15 minutes: 300 ppm.</p>
n-Butyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)</p> <p>STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.</p>
Toluene	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Absorbed through skin.</p> <p>TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Absorbed through skin , Sensitiser.</p> <p>STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³. TWA 8 hours: 275 mg/m³. TWA 8 hours: 50 ppm.</p>
2-Butoxyethanol	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Absorbed through skin , Sensitiser.</p> <p>TWA 8 hours: 98 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 246 mg/m³. STEL 15 minutes: 50 ppm.</p>
Methyl methacrylate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Sensitiser.</p> <p>TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Sensitiser.</p> <p>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.</p>

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Ethyl acetate	<p>EU OEL (Europe, 1/2022) STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>EU OEL (Europe, 1/2022) TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p>
Ethyl acetate	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) TWA 8 hours: 200 ppm. TWA 8 hours: 730 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1470 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) Absorbed through skin , Ototoxicant. TWA 8 hours: 25 ppm. TWA 8 hours: 81 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 380 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 270 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 250 mg/m³.</p>
Methyl methacrylate	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) TWA 8 hours: 10 ppm. TWA 8 hours: 42 mg/m³. STEL 15 minutes: 50 ppm.</p>

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Maleic anhydride	<p>STEL 15 minutes: 210 mg/m³.</p> <p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)</p> <p>TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.41 mg/m³. CEIL: 0.2 ppm. CEIL: 0.81 mg/m³.</p>
Ethyl acetate	<p>Ministry of Labor (France, 6/2024)</p> <p>TWA 8 hours: 200 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 734 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 1468 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 400 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>
n-Butyl acetate	<p>Ministry of Labor (France, 6/2024)</p> <p>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)</p>
Toluene	<p>Ministry of Labor (France, 6/2024) Repr 2. Absorbed through skin , Ototoxicant.</p> <p>TWA 8 hours: 20 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 76.8 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) STEL 15 minutes: 384 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>
2-Methoxy-1-methylethyl acetate	<p>Ministry of Labor (France, 6/2024) Absorbed through skin.</p> <p>STEL 15 minutes: 550 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) TWA 8 hours: 275 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>
2-Butoxyethanol	<p>Ministry of Labor (France, 6/2024) Absorbed through skin.</p> <p>TWA 8 hours: 10 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 49 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 246 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>
Methyl methacrylate	<p>Ministry of Labor (France, 6/2024)</p> <p>TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 205 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) STEL 15 minutes: 410 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</p>

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Maleic anhydride	<p>Ministry of Labor (France, 6/2024) Sensitiser. STEL 15 minutes: 1 mg/m³. Notes: Permissible limit values (circulars)</p>
Ethyl acetate	<p>TRGS 900 OEL (Germany, 6/2024) TWA 8 hours: 730 mg/m³. PEAK 15 minutes: 1460 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 400 ppm.</p> <p>DFG MAC-values list (Germany, 7/2024) Develop C. TWA 8 hours: 200 ppm. PEAK 15 minutes: 400 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 750 mg/m³. PEAK 15 minutes: 1500 mg/m³ 4 times per shift [Interval: 1 hour].</p>
n-Butyl acetate	<p>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.</p> <p>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].</p>
Toluene	<p>TRGS 900 OEL (Germany, 6/2024) Absorbed through skin. TWA 8 hours: 190 mg/m³. PEAK 15 minutes: 380 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 100 ppm.</p> <p>DFG MAC-values list (Germany, 7/2024) Develop C. Absorbed through skin. TWA 8 hours: 50 ppm. PEAK 15 minutes: 100 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 190 mg/m³. PEAK 15 minutes: 380 mg/m³ 4 times per shift [Interval: 1 hour].</p>
2-Methoxy-1-methylethyl acetate	<p>TRGS 900 OEL (Germany, 6/2024) TWA 8 hours: 270 mg/m³. PEAK 15 minutes: 270 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm.</p> <p>DFG MAC-values list (Germany, 7/2024) Develop C. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 270 mg/m³. PEAK 15 minutes: 270 mg/m³ 4 times per shift [Interval: 1 hour].</p>
2-Butoxyethanol	<p>TRGS 900 OEL (Germany, 6/2024) Absorbed through skin. TWA 8 hours: 49 mg/m³. PEAK 15 minutes: 98 mg/m³. TWA 8 hours: 10 ppm. PEAK 15 minutes: 20 ppm.</p> <p>DFG MAC-values list (Germany, 7/2024) Develop C. Absorbed through skin. TWA 8 hours: 10 ppm. PEAK 15 minutes: 20 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 49 mg/m³. PEAK 15 minutes: 98 mg/m³ 4 times per shift [Interval: 1 hour].</p>
Methyl methacrylate	<p>TRGS 900 OEL (Germany, 6/2024) TWA 8 hours: 210 mg/m³. PEAK 15 minutes: 420 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 100 ppm.</p> <p>DFG MAC-values list (Germany, 7/2024) Develop C. Skin sensitiser. TWA 8 hours: 50 ml/m³.</p>

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Maleic anhydride	<p>PEAK 15 minutes: 100 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 210 mg/m³. PEAK 15 minutes: 420 mg/m³ 4 times per shift [Interval: 1 hour]. PEAK 15 minutes: 100 ml/m³ 4 times per shift [Interval: 1 hour]. 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].</p>
Ethyl acetate	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) Absorbed through skin. TWA 8 hours: 25 ppm. TWA 8 hours: 120 mg/m³.</p>
Methyl methacrylate	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Maleic anhydride	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024) TWA 8 hours: 0.25 ppm. TWA 8 hours: 1 mg/m³.</p>

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Ethyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Sensitiser. TWA 8 hours: 734 mg/m ³ . PEAK 15 minutes: 1468 mg/m ³ . PEAK 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.
n-Butyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Sensitiser. TWA 8 hours: 241 mg/m ³ . PEAK 15 minutes: 723 mg/m ³ . PEAK 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Toluene	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Absorbed through skin. TWA 8 hours: 192 mg/m ³ . PEAK 15 minutes: 384 mg/m ³ . PEAK 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
2-Methoxy-1-methylethyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) TWA 8 hours: 275 mg/m ³ . PEAK 15 minutes: 550 mg/m ³ . PEAK 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
2-Butoxyethanol	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Absorbed through skin. TWA 8 hours: 98 mg/m ³ . PEAK 15 minutes: 246 mg/m ³ . PEAK 15 minutes: 50 ppm. TWA 8 hours: 20 ppm.
Methyl methacrylate	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Absorbed through skin , Sensitiser. TWA 8 hours: 208 mg/m ³ . PEAK 15 minutes: 415 mg/m ³ . PEAK 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Sensitiser. TWA 8 hours: 0.08 mg/m ³ . PEAK 15 minutes: 0.08 mg/m ³ . PEAK 15 minutes: 0.2 ppm. TWA 8 hours: 0.2 ppm.
Ethyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) TWA 8 hours: 540 mg/m ³ . TWA 8 hours: 150 ppm.
n-Butyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [bútýlasetat, allir ísómerar] TWA 8 hours: 241 mg/m ³ . TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m ³ . STEL 15 minutes: 150 ppm.
Toluene	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Absorbed through skin. STEL 15 minutes: 188 mg/m ³ . STEL 15 minutes: 50 ppm. TWA 8 hours: 94 mg/m ³ . TWA 8 hours: 25 ppm.
2-Methoxy-1-methylethyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Absorbed through skin. STEL 15 minutes: 550 mg/m ³ . STEL 15 minutes: 100 ppm. TWA 8 hours: 275 mg/m ³ . TWA 8 hours: 50 ppm.
2-Butoxyethanol	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Absorbed through skin. STEL 15 minutes: 246 mg/m ³ . STEL 15 minutes: 50 ppm.

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Methyl methacrylate	<p>TWA 8 hours: 100 mg/m³. TWA 8 hours: 20 ppm.</p> <p>Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Absorbed through skin , Sensitiser. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Maleic anhydride	<p>Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Sensitiser. TWA 8 hours: 0.4 mg/m³. TWA 8 hours: 0.1 ppm.</p>
Ethyl acetate	<p>NAOSH (Ireland, 4/2024) Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 200 ppm. OELV 15 minutes: 400 ppm. OELV 15 minutes: 1468 mg/m³. OELV 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>NAOSH (Ireland, 4/2024) Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 192 mg/m³. OELV 15 minutes: 100 ppm. OELV 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>NAOSH (Ireland, 4/2024) Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 275 mg/m³. OELV 15 minutes: 100 ppm. OELV 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>NAOSH (Ireland, 4/2024) Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 20 ppm. OELV 8 hours: 98 mg/m³. OELV 15 minutes: 50 ppm. OELV 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>NAOSH (Ireland, 4/2024) Sensitiser. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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..</p>
Ethyl acetate	<p>Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024) Short Term 15 minutes: 400 ppm. Short Term 15 minutes: 1468 mg/m³. Limit value 8 hours: 200 ppm. Limit value 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>

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Toluene	<p>Limit value 8 hours: 241 mg/m³. Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024) Absorbed through skin. Limit value 8 hours: 50 ppm. Limit value 8 hours: 192 mg/m³. Short Term 15 minutes: 100 ppm. Short Term 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024) Absorbed through skin. Limit value 8 hours: 50 ppm. Limit value 8 hours: 275 mg/m³. Short Term 15 minutes: 100 ppm. Short Term 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024) Absorbed through skin. Limit value 8 hours: 20 ppm. Limit value 8 hours: 98 mg/m³. Short Term 15 minutes: 50 ppm. Short Term 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024) Short Term 15 minutes: 100 ppm. Limit value 8 hours: 50 ppm.</p>
Ethyl acetate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) TWA 8 hours: 200 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 54 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) Absorbed through skin. TWA 8 hours: 50 mg/m³. STEL 15 minutes: 150 mg/m³. TWA 8 hours: 14 ppm. STEL 15 minutes: 40 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) Absorbed through skin. TWA 8 hours: 98 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) TWA 8 hours: 10 mg/m³.</p>
Maleic anhydride	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) TWA 8 hours: 1 mg/m³.</p>

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Ethyl acetate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) TWA 8 hours: 500 mg/m³. TWA 8 hours: 150 ppm. CEIL: 1100 mg/m³. CEIL: 300 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) Repr. Absorbed through skin. TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) Absorbed through skin. TWA 8 hours: 250 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 400 mg/m³. STEL 15 minutes: 75 ppm.</p>
2-Butoxyethanol	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) Absorbed through skin. TWA 8 hours: 50 mg/m³. TWA 8 hours: 10 ppm. STEL 15 minutes: 100 mg/m³. STEL 15 minutes: 20 ppm.</p>
Methyl methacrylate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) Sensitiser. TWA 8 hours: 208 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 416 mg/m³. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021) STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021) Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm.</p>

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2-Butoxyethanol	<p>STEL 15 minutes: 550 mg/m³.</p> <p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021) Absorbed through skin.</p> <p>TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)</p> <p>STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Ethyl acetate	<p>EU OEL (Europe, 1/2022)</p> <p>STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>EU OEL (Europe, 1/2022)</p> <p>STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.</p>
Toluene	<p>EU OEL (Europe, 1/2022) Absorbed through skin.</p> <p>TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>EU OEL (Europe, 1/2022) Absorbed through skin.</p> <p>TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>EU OEL (Europe, 1/2022) Absorbed through skin.</p> <p>TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>EU OEL (Europe, 1/2022)</p> <p>TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p>
Ethyl acetate	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</p> <p>STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.</p>
n-Butyl acetate	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</p> <p>TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.</p>
Toluene	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</p> <p>TWA 8 hours: 150 mg/m³. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 39 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</p> <p>TWA 8 hours: 550 mg/m³. TWA 8 hours: 100 ppm.</p>

SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024) Absorbed through skin.</p> <p>TWA 8 hours: 100 mg/m³. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20.4 ppm. STEL 15 minutes: 50 ppm.</p>
Methyl methacrylate	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)</p> <p>TWA 8 hours: 205 mg/m³. STEL 15 minutes: 410 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Ethyl acetate	<p>FOR-2011-12-06-1358 (Norway, 5/2024)</p> <p>TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>FOR-2011-12-06-1358 (Norway, 5/2024)</p> <p>STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.</p>
Toluene	<p>FOR-2011-12-06-1358 (Norway, 5/2024) Absorbed through skin.</p> <p>TWA 8 hours: 25 ppm. TWA 8 hours: 94 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>FOR-2011-12-06-1358 (Norway, 5/2024) Absorbed through skin.</p> <p>TWA 8 hours: 50 ppm. TWA 8 hours: 270 mg/m³.</p>
2-Butoxyethanol	<p>FOR-2011-12-06-1358 (Norway, 5/2024) Absorbed through skin.</p> <p>TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m³.</p>
Methyl methacrylate	<p>FOR-2011-12-06-1358 (Norway, 5/2024) Sensitiser.</p> <p>TWA 8 hours: 25 ppm. TWA 8 hours: 100 mg/m³. STEL 15 minutes: 400 mg/m³. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>FOR-2011-12-06-1358 (Norway, 5/2024) Sensitiser.</p> <p>TWA 8 hours: 0.2 ppm. TWA 8 hours: 0.8 mg/m³.</p>
Ethyl acetate	<p>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)</p> <p>TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.</p>
n-Butyl acetate	<p>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)</p> <p>TWA 8 hours: 240 mg/m³. STEL 15 minutes: 720 mg/m³.</p>
Toluene	<p>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.</p> <p>TWA 8 hours: 100 mg/m³. STEL 15 minutes: 200 mg/m³.</p>

SECTION 8: Exposure controls/personal protection

2-Methoxy-1-methylethyl acetate	<p>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: 260 mg/m³. STEL 15 minutes: 520 mg/m³.</p>
2-Butoxyethanol	<p>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: 98 mg/m³. STEL 15 minutes: 200 mg/m³.</p>
Methyl methacrylate	<p>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: 100 mg/m³. STEL 15 minutes: 300 mg/m³.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Portuguese Institute of Quality (Portugal, 11/2014) TWA 8 hours: 400 ppm. Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021) STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Portuguese Institute of Quality (Portugal, 11/2014) A4. TWA 8 hours: 20 ppm. Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021) Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021) Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³.</p>
2-Butoxyethanol	<p>Portuguese Institute of Quality (Portugal, 11/2014) A3. TWA 8 hours: 20 ppm. Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021) Absorbed through skin.</p>

SECTION 8: Exposure controls/personal protection

Methyl methacrylate	<p>STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³.</p> <p>Portuguese Institute of Quality (Portugal, 11/2014) A4. Sensitiser. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p> <p>Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021) STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Maleic anhydride	<p>Portuguese Institute of Quality (Portugal, 11/2014) A4. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapor.</p>
Ethyl acetate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) VLA 8 hours: 734 mg/m³. VLA 8 hours: 200 ppm. Short term 15 minutes: 1468 mg/m³. Short term 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) R2. Absorbed through skin. VLA 8 hours: 192 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 384 mg/m³. Short term 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) Absorbed through skin. VLA 8 hours: 275 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 550 mg/m³. Short term 15 minutes: 100 ppm.</p>
2-Butoxyethanol	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) Absorbed through skin. VLA 8 hours: 98 mg/m³. VLA 8 hours: 20 ppm. Short term 15 minutes: 246 mg/m³. Short term 15 minutes: 50 ppm.</p>
Methyl methacrylate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) VLA 8 hours: 205 mg/m³. Short term 15 minutes: 410 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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.</p>

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Ethyl acetate	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) Inhalation sensitiser. TWA 8 hours: 734 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>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).</p>
Toluene	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 384 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Methoxy-1-methylethyl acetate	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 275 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 100 ppm.</p>
2-Butoxyethanol	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 98 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 246 mg/m³. STEL 15 minutes: 50 ppm.</p>
Methyl methacrylate	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) Sensitiser , Inhalation sensitiser. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) TWA 8 hours: 734 mg/m³. TWA 8 hours: 200 ppm. KTV 15 minutes: 1468 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 400 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>
n-Butyl acetate	<p>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].</p>
Toluene	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) Repr Dev 2. Absorbed through skin. TWA 8 hours: 192 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 384 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 100 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>

SECTION 8: Exposure controls/personal protection

2-Methoxy-1-methylethyl acetate	<p>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: 275 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 550 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 100 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>
2-Butoxyethanol	<p>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: 98 mg/m³. TWA 8 hours: 20 ppm. KTV 15 minutes: 246 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 50 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>
Methyl methacrylate	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) TWA 8 hours: 210 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 420 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 100 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p>
Maleic anhydride	<p>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].</p>
Ethyl acetate	<p>National institute of occupational safety and health (Spain, 1/2024) TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>National institute of occupational safety and health (Spain, 1/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>National institute of occupational safety and health (Spain, 1/2024) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>National institute of occupational safety and health (Spain, 1/2024) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³.</p>

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Methyl methacrylate	<p>STEL 15 minutes: 245 mg/m³. STEL 15 minutes: 50 ppm.</p> <p>National institute of occupational safety and health (Spain, 1/2024) Skin sensitiser. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>Work environment authority Regulation 2018:1 (Sweden, 11/2022) TWA 8 hours: 150 ppm. TWA 8 hours: 550 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 1100 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>Work environment authority Regulation 2018:1 (Sweden, 11/2022) Absorbed through skin , Ototoxicant. TWA 8 hours: 50 ppm. TWA 8 hours: 192 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 384 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>Work environment authority Regulation 2018:1 (Sweden, 11/2022) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
2-Butoxyethanol	<p>Work environment authority Regulation 2018:1 (Sweden, 11/2022) Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³.</p>
Methyl methacrylate	<p>Work environment authority Regulation 2018:1 (Sweden, 11/2022) Sensitiser. TWA 8 hours: 50 ppm. TWA 8 hours: 200 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 400 mg/m³.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>SUVA (Switzerland, 1/2025) STEL 15 minutes: 400 ppm. STEL 15 minutes: 1460 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 730 mg/m³.</p>
n-Butyl acetate	<p>SUVA (Switzerland, 1/2025) TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³. STEL 15 minutes: 150 ppm.</p>

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Toluene	<p>STEL 15 minutes: 720 mg/m³. SUVA (Switzerland, 1/2025) Develop 2. Absorbed through skin , Ototoxicant. TWA 8 hours: 50 ppm. TWA 8 hours: 190 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 760 mg/m³.</p>
2-Methoxy-1-methylethyl acetate	<p>SUVA (Switzerland, 1/2025) TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 275 mg/m³.</p>
2-Butoxyethanol	<p>SUVA (Switzerland, 1/2025) Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 49 mg/m³. STEL 15 minutes: 20 ppm. STEL 15 minutes: 98 mg/m³.</p>
Methyl methacrylate	<p>SUVA (Switzerland, 1/2025) Sensitiser. TWA 8 hours: 50 ppm. TWA 8 hours: 210 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 420 mg/m³.</p>
Maleic anhydride	<p>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.</p>
Ethyl acetate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020) STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 734 mg/m³.</p>
n-Butyl acetate	<p>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.</p>
Toluene	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed through skin. STEL 15 minutes: 384 mg/m³. TWA 8 hours: 191 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.</p>
2-Butoxyethanol	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed through skin. STEL 15 minutes: 50 ppm. TWA 8 hours: 25 ppm. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 123 mg/m³.</p>
Methyl methacrylate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020) STEL 15 minutes: 416 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 208 mg/m³. TWA 8 hours: 50 ppm.</p>
Maleic anhydride	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020) Inhalation sensitiser. STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³.</p>

Biological exposure indices

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure indices
Toluene	<p>VGU BEI (Austria, 9/2020) BEI Fitness: 250 µg/l, toluene [in blood]. Sampling time: one year. BEI Fitness: 0.8 mg/l, o-cresol [in urine]. Sampling time: one year. BEI Fitness: 130000 /µl, platelets (non-pathological differential blood count) [in blood]. Sampling time: one year. BEI Fitness: 150000 /µl, platelets [in blood]. Sampling time: one year. BEI Fitness: 3700 to 13000 /µl, leukocytes (non-pathological differential blood count) [in blood]. Sampling time: one year. BEI Fitness: 4000 to 13000 /µl, leukocytes [in blood]. Sampling time: one year. BEI Fitness - men: 3.8 million/µl, erythrocytes [in blood]. Sampling time: one year. BEI Fitness - women: 3.2 million/µl, erythrocytes [in blood]. Sampling time: one year. BEI Fitness - men: 12 g/dl, hemoglobin [in blood]. Sampling time: one year. BEI Fitness - women: 10 g/dl, hemoglobin [in blood]. Sampling time: one year.</p>
No exposure indices known.	
Toluene	<p>Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) BLV: 1.6 mmol/mmol creatinine, hippuric acid [in urine]. Sampling time: at the end of the exposure or at the end of the work shift.</p>
Toluene	<p>Ordinance on the protection of workers from exposure to hazardous chemicals at work, biological limit values (Annex IV) (Croatia, 12/2023) BEI: 20 ppm, toluene [in end exhaled air]. Sampling time: during exposure. BEI: 0.83 µmol/l, toluene [in end exhaled air]. Sampling time: during exposure. BEI: 1 mg/l, toluene [in blood]. Sampling time: at the end of the work shift. BEI: 10.85 µmol/l, toluene [in blood]. Sampling time: at the end of the work shift. BEI: 1.05 mmol/mol creatinine, o-cresol [in urine]. Sampling time: at the end of the work shift. BEI: 1 mg/g creatinine, o-cresol [in urine]. Sampling time: at the end of the work shift. BEI: 1.58 mol/mol creatinine, hippuric acid [in urine]. Sampling time: at the end of the work shift. BEI: 2.5 g/g creatinine, hippuric acid [in urine]. Sampling time: at the end of the work shift.</p>
No exposure indices known.	
Toluene	<p>Government regulation of Czech Republic Limit Values of Biological Exposure Tests (Czech Republic, 9/2015) Biological limit values: 1000 µmol/mmol creatinine, hippuric acid [in urine]. Sampling time: end of the shift. Biological limit values: 1600 mg/g, hippuric acid [in urine]. Sampling time: end of the shift. Biological limit values: 1.6 µmol/mmol creatinine, o-kresol (after hydrolysis) [in urine]. Sampling time: end of the shift. Biological limit values: 1.5 mg/g creatinine, o-kresol (after hydrolysis) [in urine]. Sampling time: end of the shift.</p>
2-Butoxyethanol	<p>Government regulation of Czech Republic Limit Values of Biological Exposure Tests (Czech Republic, 9/2015) Biological limit values: 0.17 mmol/mmol creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: the end of the shift at the end of the week.</p>

SECTION 8: Exposure controls/personal protection

No exposure indices known.

No exposure indices known.

No exposure indices known.

Toluene

Biological limit values: 200 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: the end of the shift at the end of the week.

Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020)

BEI: 500 nmol/l, toluene [in blood]. Sampling time: the morning after the working day.

Toluene

Biological limit values (BLV) - Labour Code / ANSES (France, 4/2023)

BLV: 30 µg/l, toluene [in urine]. Sampling time: at the end of the shift.

BLV: 20 µg/l, toluene [in blood]. Sampling time: at the beginning of the shift and at the end of the week.

BLV: 300 µg/g Cr, ortho-cresol [in urine]. Sampling time: end of shift and weekend.

2-Butoxyethanol

Biological limit values (BLV) - Labour Code / ANSES (France, 4/2023) [2- butoxyéthanol et son acétate]

BLV: 100 mg/g Cr, 2-butoxyacetic acid [in urine]. Sampling time: end of shift (regardless of the day of the week).

Toluene

DFG BEI-values list (Germany, 7/2024) Notes: danger from percutaneous absorption (see p. 211 and p. 228).

BEI: 600 µg/l, toluene [in blood]. Sampling time: immediately after exposure.

BEI: 1.5 mg/l, o-cresol (after hydrolysis) [in urine]. Sampling time: end of exposure or end of shift / for long-term exposures: at the end of the shift after several shifts.

BEI: 75 µg/l, toluene [in urine]. Sampling time: end of exposure or end of shift.

TRGS 903 - BEI Values (Germany, 10/2024)

BEI: 600 µg/l, toluene [in whole blood]. Sampling time: immediately after exposure.

BEI: 1.5 mg/l, o-cresol (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposure after several previous shifts.

BEI: 75 µg/l, toluene [in urine]. Sampling time: end of exposure or end of shift.

2-Butoxyethanol

DFG BEI-values list (Germany, 7/2024) Notes: danger from percutaneous absorption (see p. 211 and p. 228).

BEI: 150 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposures after several previous shifts.

TRGS 903 - BEI Values (Germany, 10/2024)

BEI: 150 mg/g creatinine, butoxy acetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposure after several previous shifts.

No exposure indices known.

Toluene

5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)

BEI: 1 mg/g creatinine, o-cresol [in urine]. Sampling time: at the end of the shift.

BEI: 1 µmol/mmol creatinine, o-cresol [in urine]. Sampling time: at the end of the shift.

No exposure indices known.

SECTION 8: Exposure controls/personal protection

Toluene	<p>NAOSH BGVs (Ireland, 1/2011) BMGV: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases. BMGV: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases. BMGV: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.</p>
2-Butoxyethanol	<p>NAOSH BGVs (Ireland, 1/2011) BMGV: 200 mg/g creatinine, BAA [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.</p>
No exposure indices known.	
Toluene	<p>Minister Cabinet Regulations No.325 - BEI (Latvia, 3/2024) BEI: 600 µg/l, toluene [in blood]. Sampling time: at the end of the exposure. BEI: 75 µg/l, toluene [in urine]. Sampling time: end of the shift. BEI: 1.5 mg/l, o-cresol (after hydrolysis) [in urine]. Sampling time: at the end of the exposure or at the end of the shift.</p>
No exposure indices known.	
Toluene	<p>Portuguese Institute of Quality (Portugal, 11/2014) BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: end of shift at the end of the workweek.</p>
2-Butoxyethanol	<p>Portuguese Institute of Quality (Portugal, 11/2014) BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.</p>
Toluene	<p>HG 1218/2006, Annex 2, with subsequent modifications and additions (Romania, 3/2024) OBLV: 3 mg/l, o-cresol [in urine]. Sampling time: end of shift. OBLV: 2 g/l, hippuric acid [in urine]. Sampling time: end of shift.</p>
Toluene	<p>Government regulation SR c. 355/2006 (Slovakia, 6/2024) BLV: 1010 µmol/mmol creatinine, as hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.08 µmol/mmol creatinine, as o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 1600 mg/g creatinine, as hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.03 mg/g creatinine, as o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 13399 µmol/l, as hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 14.3 µmol/l, as o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work shifts. BLV: 6517 nmol/l, as toluene [in blood]. Sampling time: at the end of exposure or work shift. BLV: 2401 mg/l, as hippuric acid [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1.5 mg/l, as o-cresol [in urine]. Sampling time: at the end of exposure or work shift; long-term exposure: after several work</p>

SECTION 8: Exposure controls/personal protection

Toluene	<p>shifts. BLV: 600 µg/l, as toluene [in blood]. Sampling time: at the end of exposure or work shift.</p> <p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) BAT: 1.5 mg/l, o-cresol (after hydrolysis) [in urine]. Sampling time: at the end of the work shift, at long-term exposure: at the end of the work shift after several consecutive workdays. BAT: 600 µg/l, toluene [in blood]. Sampling time: immediately after exposure. BAT: 75 µg/l, toluene [in urine]. Sampling time: at the end of the work shift.</p>
2-Butoxyethanol	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) BAT: 150 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the work shift, at long-term exposure: at the end of the work shift after several consecutive workdays.</p>
Toluene	<p>National institute of occupational safety and health (Spain, 1/2024) VLB: 0.05 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek. VLB: 0.6 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. VLB: 0.08 mg/l, toluene [in urine]. Sampling time: end of shift.</p>
2-Butoxyethanol	<p>National institute of occupational safety and health (Spain, 1/2024) VLB: 200 mg/g creatinine, butoxyacetic acid [in urine]. Sampling time: end of shift.</p>
No exposure indices known.	
Toluene	<p>SUVA (Switzerland, 1/2025) BEI: 2 g/g creatinine, hippuric acid [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift. BEI: 1.26 mmol/mmol creatinine, hippuric acid [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift. BEI: 0.5 mg/l, o-cresol [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift. BEI: 4.62 µmol/l, o-cresol [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift. BEI: 600 µg/l, toluene [in blood]. Sampling time: immediately after exposure or after working hours. BEI: 6.48 µmol/l, toluene [in blood]. Sampling time: immediately after exposure or after working hours. BEI: 75 µg/l, toluene [in urine]. Sampling time: immediately after exposure or after working hours.</p>
2-Butoxyethanol	<p>SUVA (Switzerland, 1/2025) BEI: 150 mg/g creatinine, 2-butoxy acetic acid (after hydrolysis) [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift.</p>
2-Butoxyethanol	<p>EH40/2005 BMGVs (United Kingdom (UK), 1/2020) BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine]. Sampling time: post shift.</p>

SECTION 8: Exposure controls/personal protection

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

Ethyl acetate

Result

DNEL - General population - Long term - Oral

4.5 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

37 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

63 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

367 mg/m³

Effects: Local

DNEL - General population - Long term - Inhalation

367 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

734 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

734 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

734 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

734 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

1468 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

1468 mg/m³

Effects: Systemic

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

SECTION 8: Exposure controls/personal protection

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

Toluene

DNEL - General population - Long term - Oral

8.13 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

56.5 mg/m³

Effects: Local

DNEL - General population - Long term - Inhalation

56.5 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

192 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

SECTION 8: Exposure controls/personal protection

192 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal
226 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Inhalation
226 mg/m³
Effects: Local

DNEL - General population - Short term - Inhalation
226 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Dermal
384 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Inhalation
384 mg/m³
Effects: Local

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

2-Methoxy-1-methylethyl acetate

DNEL - General population - Long term - Inhalation
33 mg/m³
Effects: Local

DNEL - General population - Long term - Inhalation
33 mg/m³
Effects: Systemic

DNEL - General population - Long term - Oral
36 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
275 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal
320 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Inhalation
550 mg/m³
Effects: Local

DNEL - Workers - Long term - Dermal
796 mg/kg bw/day
Effects: Systemic

2-Butoxyethanol

DNEL - General population - Long term - Oral
6.3 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Oral
26.7 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation
59 mg/m³

SECTION 8: Exposure controls/personal protection

Effects: Systemic

DNEL - Workers - Long term - Inhalation

98 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

147 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

246 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

426 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

1091 mg/m³

Effects: Systemic

DNEL - General population - Short term - Dermal

1.5 mg/cm²

Effects: Local

DNEL - General population - Long term - Dermal

1.5 mg/cm²

Effects: Local

DNEL - Workers - Short term - Dermal

1.5 mg/cm²

Effects: Local

DNEL - Workers - Long term - Dermal

1.5 mg/cm²

Effects: Local

DNEL - General population - Long term - Oral

8.2 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

8.2 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

13.67 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

74.3 mg/m³

Effects: Systemic

DNEL - General population - Long term - Inhalation

104 mg/m³

Effects: Local

DNEL - General population - Short term - Inhalation

208 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

208 mg/m³

Effects: Local

Methyl methacrylate

SECTION 8: Exposure controls/personal protection

Fatty acids, C14-18 and C16-18-unsatd., maleated	DNEL - Workers - Long term - Inhalation 348.4 mg/m ³ <u>Effects</u> : Systemic
	DNEL - Workers - Short term - Inhalation 416 mg/m ³ <u>Effects</u> : Local
	DNEL - General population - Long term - Oral 1.5 mg/kg bw/day <u>Effects</u> : Systemic
Maleic anhydride	DNEL - General population - Long term - Dermal 1.5 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Dermal 3 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 0.05 mg/m ³ <u>Effects</u> : Systemic
	DNEL - General population - Long term - Oral 0.06 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 0.08 mg/m ³ <u>Effects</u> : Local
	DNEL - Workers - Long term - Inhalation 0.081 mg/m ³ <u>Effects</u> : Local
	DNEL - Workers - Long term - Inhalation 0.081 mg/m ³ <u>Effects</u> : Systemic
	DNEL - General population - Short term - Oral 0.1 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Short term - Dermal 0.1 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Dermal 0.1 mg/kg bw/day <u>Effects</u> : Systemic
DNEL - Workers - Short term - Dermal 0.2 mg/kg bw/day <u>Effects</u> : Systemic	
DNEL - Workers - Long term - Dermal 0.2 mg/kg bw/day <u>Effects</u> : Systemic	
DNEL - Workers - Short term - Inhalation 0.2 mg/m ³ <u>Effects</u> : Local	
DNEL - Workers - Short term - Inhalation	

SECTION 8: Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. 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.

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.

Recommendations : Wear suitable gloves tested to EN374.

< 1 hour (breakthrough time): Nitrile gloves. thickness > 0.3 mm

1 - 4 hours (breakthrough time): 4H / Silver Shield® gloves.

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	: Various
Odour	: Slight
Odour threshold	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	:

Ingredient name	°C	°F	Method
Ethyl acetate	77.1	170.8	
Toluene	110.6	231.1	

Flammability	: Not available.
Lower and upper explosion limit	: Lower: 1.1% (toluene) Upper: 11.5% (ethyl acetate)
Flash point	: Closed cup: -1°C (30.2°F)
Auto-ignition temperature	:

Ingredient name	°C	°F	Method
2-Butoxyethanol	230	446	DIN 51794
2-Methoxy-1-methylethyl acetate	333	631.4	DIN 51794

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	:

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Ethyl acetate	81.59163	10.9				
Toluene	23.17	3.1				

Relative density	: Not available.
Density	: 0 g/cm ³
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

Ethyl acetate

Result

Rat - Oral - LD50
5620 mg/kg

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]

Toluene

Rat - Oral - LD50
636 mg/kg

Rat - Inhalation - LC50 Vapour
49 g/m³ [4 hours]

2-Methoxy-1-methylethyl acetate

Rat - Oral - LD50
8532 mg/kg

Rabbit - Dermal - LD50
>5 g/kg

Methyl methacrylate

Rat - Oral - LD50
7872 mg/kg

Toxic effects: Behavioral - Muscle weakness Behavioral - Coma Lung, Thorax, or Respiration - Respiratory depression

Rabbit - Dermal - LD50
>5 g/kg

Toxic effects: Skin After systemic exposure - Dermatitis, other

Rat - Inhalation - LC50 Vapour
78000 mg/m³ [4 hours]

Maleic anhydride

Rat - Oral - LD50
400 mg/kg

Rabbit - Dermal - LD50

SECTION 11: Toxicological information

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)
SUPREMO KLARLACK 3990-15	41025.6	N/A	N/A	102.6	N/A
Ethyl acetate	5620	N/A	N/A	N/A	N/A
n-Butyl acetate	10760	14112	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	49	N/A
2-Methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
2-Butoxyethanol	1200	N/A	N/A	3	N/A
Methyl methacrylate	7872	N/A	N/A	78	N/A
Maleic anhydride	400	2620	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name

n-Butyl acetate

Result

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Toluene

Pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

Rabbit - Skin - Mild irritant

Amount/concentration applied: 435 mg

Rabbit - Skin - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rabbit - Skin - Moderate irritant

Amount/concentration applied: 500 mg

2-Butoxyethanol

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

n-Butyl acetate

Result

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 mg

Toluene

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 0.5 minutes

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 870 ug

Rabbit - Eyes - Severe irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 2 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

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2-Butoxyethanol

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 100 mg

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

Ethyl acetate

n-Butyl acetate

Toluene

Methyl methacrylate

Result

STOT SE 3, H336 (Narcotic effects)

STOT SE 3, H336 (Narcotic effects)

STOT SE 3, H336 (Narcotic effects)

STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Toluene

Maleic anhydride

Result

STOT RE 2, H373

STOT RE 1, H372 (respiratory system) (inhalation)

Aspiration hazard

SECTION 11: Toxicological information

Product/ingredient name

Toluene

Result

ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : May cause an allergic skin reaction.
- 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 or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Short term exposure

- 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** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : Suspected of damaging the unborn child.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

SECTION 11: Toxicological information

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

Ethyl acetate

Result

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia cucullata*

Age: 11 days

154000 µg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Indian catfish - *Heteropneustes fossilis*

Size: 14.16 cm; Weight: 25.54 g

212500 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Selenastrum sp.*

2500000 µg/l [96 hours]

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

12 mg/l [21 days]

Effect: Behavior

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

75.6 mg/l [32 days]

Effect: Mortality

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

Toluene

Acute - LC50 - Fresh water

Fish - Coho salmon, silver salmon - *Oncorhynchus kisutch* - Fry

Weight: 1 g

5500 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Pseudokirchneriella subcapitata*

12500 µg/l [72 hours]

Effect: Growth

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

1000 µg/l [21 days]

Effect: Reproduction

SECTION 12: Ecological information

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: ≤24 hours

5.56 mg/l [48 hours]

Effect: Intoxication

2-Butoxyethanol

Acute - LC50 - Marine water

Fish - Inland silverside - *Menidia beryllina*

Size: 40 to 100 mm

1250000 µg/l [96 hours]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - *Crangon crangon*

800000 µg/l [48 hours]

Effect: Mortality

Methyl methacrylate

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Adult

130000 µg/l [96 hours]

Effect: Mortality

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
Ethyl acetate	0.68	30	Low
n-Butyl acetate	2.3	-	Low
Toluene	2.73	90	Low
2-Methoxy-1-methylethyl acetate	1.2	-	Low
2-Butoxyethanol	0.81	-	Low
Methyl methacrylate	1.38	-	Low
Maleic anhydride	-2.78	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
Ethyl acetate	1.3	18.1744
n-Butyl acetate	1.5	33.2139
Toluene	2.1	117.115
2-Methoxy-1-methylethyl acetate	0.36	2.31363
2-Butoxyethanol	1.8	67.3685
Methyl methacrylate	1.2	16.6906
Maleic anhydride	1.1	11.4841

Results of PMT and vPvM assessment

SECTION 12: Ecological information

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Ethyl acetate	No	No	No	No	No	No	No
n-Butyl acetate	No	No	No	No	No	No	No
Toluene	No	No	No	No	No	No	No
2-Methoxy-1-methylethyl acetate	No	No	No	No	No	No	No
2-Butoxyethanol	No	No	No	No	No	No	No
Methyl methacrylate	No	No	No	No	No	No	No
Mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly (oxyethylene)	No	No	No	No	No	No	No
Fatty acids, C14-18 and C16-18-unsatd., maleated	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]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Ethyl acetate	No	N/A	No	No	No	N/A	No
n-Butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
Toluene	No	N/A	No	Yes	No	N/A	No
2-Methoxy-1-methylethyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
2-Butoxyethanol	No	N/A	N/A	No	N/A	N/A	N/A
Methyl methacrylate	No	N/A	N/A	No	N/A	N/A	N/A
Mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly (oxyethylene)	No	N/A	N/A	No	N/A	N/A	N/A
Fatty acids, C14-18 and C16-18-unsatd., maleated	No	N/A	N/A	No	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]

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Ethyl acetate	No	No	No	No	No	No	No
n-Butyl acetate	No	No	No	No	No	No	No
Toluene	No	No	No	No	No	No	No
2-Methoxy-1-methylethyl acetate	No	No	No	No	No	No	No
2-Butoxyethanol	No	No	No	No	No	No	No
Methyl methacrylate	No	No	No	No	No	No	No
Mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly(oxyethylene)	No	No	No	No	No	No	No
Fatty acids, C14-18 and C16-18-unsatd., maleated	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	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Special provisions** 640 (C)
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
Special provisions 640 (C)

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]
SUPREMO KLARLACK 3990-15	≥90	3
Toluene	≤5	48

Labelling :

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : 3901 - Polymers of ethylene.

Total percentage of synthetic polymer microparticles : 0.75%

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.

SECTION 15: Regulatory information

Other EU regulations

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 2

Limitation of the use of organic solvents : Permitted.

Belgium

Czech Republic

Storage code : I

Denmark

Fire class : I-1

Executive Order No. 1795/2015

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

MAL-code : 00-3

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, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

SECTION 15: Regulatory information

MAL-code: 00-3

Application: 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. 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.

- Coveralls must be worn.

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

- Arm protectors and apron 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.

- 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** : 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** :
- | | |
|---------------------------------|----------------|
| Ethyl acetate | RG 84 |
| n-Butyl acetate | RG 84 |
| Toluene | RG 4bis, RG 84 |
| 2-Methoxy-1-methylethyl acetate | RG 84 |
| 2-Butoxyethanol | RG 84 |
| Methyl methacrylate | RG 82 |
| 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

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
P5c	1.2.5.3

Hazard class for water : 3

Technical instruction on air quality control (TA Luft)

SECTION 15: Regulatory information

Number [Class]	Description	%
5.2.1	Total dust	4.7
5.2.5	Organic substances	95.2
5.2.5 [I]	Organic substances	85.1

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
tolueen	-	-	-	Development 2	-
xyleen	-	-	-	Development 2	-

Water Discharge Policy (ABM) : A(3) Hazardous for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

Norway

Sweden

Flammable liquid class (SRVFS 2005:10) : 1

Switzerland

VOC content : VOC (w/w): 84.9%

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]

Date of issue/Date of revision : 24/02/2026 **Date of previous issue** : No previous validation **Version** : 1 **50/52**
SUPREMO KLARLACK 3990-15 - All variants **Label No** : 130367

SECTION 16: Other information

Classification	Justification
Flam. Liq. 2, H225 Eye Irrit. 2, H319 Skin Sens. 1, H317 Repr. 2, H361d STOT SE 3, H336	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
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 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
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
Repr. 2	REPRODUCTIVE TOXICITY - 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 RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 24/02/2026

Date of previous issue : No previous validation

Version : 1

SUPREMO KLARLACK 3990-15

All variants

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.

