SAFETY DATA SHEET

SUPREMO KLARLACK 3990-40 - All variants

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

1.1 Product identifier

Product name : SUPREMO KLARLACK 3990-40 - 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
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.

Precautionary statements

Prevention :
P280 - Wear protective gloves. Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapour.

Response : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

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

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

SECTION 2: Hazards identification

Hazardous ingredients : Contains: n-Butyl acetate; Ethyl acetate; Methyl methacrylate and 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)

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
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]
Ethyl acetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	≥10 - ≤25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[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	≤5	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	<1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	-	[1] [2]
Mixture of alpha-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-hydroxypoly(oxyethylene) and alpha-3-(3-(2H-	EC: 400-830-7 Index: 607-176-00-3	≤0.3	Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]

benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyl-omega-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl) propionyloxypoly (oxyethylene)					
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	≤0.01	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	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]

Type

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

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

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.

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.

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.

SECTION 4: First aid measures

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

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

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, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : 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.

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. Put on appropriate personal protective equipment.

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

6.2 Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

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

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

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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

SECTION 7: Handling and storage

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

Seveso Directive - Reporting thresholds

Danger criteria

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-Butyl acetate	**Regulation on Limit Values - MAC (Austria, 12/2025) [Butylacetat alle Isomeren außer tert-Butylacet]** CEIL: 480 mg/m³. CEIL: 100 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**Regulation on Limit Values - MAC (Austria, 12/2025)** TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. PEAK 15 minutes: 1468 mg/m³ 4 times per shift. PEAK 15 minutes: 400 ppm 4 times per shift.
2-Methoxy-1-methylethyl acetate	**Regulation on Limit Values - MAC (Austria, 12/2025)** 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.
2-Butoxyethanol	**Regulation on Limit Values - MAC (Austria, 12/2025)** 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.
Methyl methacrylate	**Regulation on Limit Values - MAC (Austria, 12/2025)** 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.
Maleic anhydride	**Regulation on Limit Values - MAC (Austria, 12/2025)** 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.

SECTION 8: Exposure controls/personal protection

	CEIL 5 minutes: 0.8 mg/m³ 8 times per shift.
n-Butyl acetate	**Limit values (Belgium, 12/2023) [butylacetaat]** STEL 15 minutes: 712 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 238 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**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.
Maleic anhydride	**Limit values (Belgium, 12/2023)** TWA 8 hours: 0.0025 ppm. Form: vapour and aerosol. TWA 8 hours: 0.01 mg/m³. Form: vapour and aerosol.
n-Butyl acetate	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 241 mg/m³. Limit value 15 minutes: 723 mg/m³. Limit value 15 minutes: 150 ppm. Limit value 8 hours: 50 ppm.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**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.
Maleic anhydride	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 1 mg/m³.

n-Butyl acetate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** STELV 15 minutes: 723 mg/m³. STELV 15 minutes: 150 ppm. ELV 8 hours: 241 mg/m³. ELV 8 hours: 50 ppm.
Ethyl acetate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** STELV 15 minutes: 400 ppm. ELV 8 hours: 200 ppm. STELV 15 minutes: 1468 mg/m³. ELV 8 hours: 734 mg/m³.
2-Methoxy-1-methylethyl acetate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** 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.
2-Butoxyethanol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** 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.
Methyl methacrylate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** Absorbed through skin , Skin sensitiser. STELV 15 minutes: 100 ppm. ELV 8 hours: 50 ppm.
Maleic anhydride	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 10/2025)** 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.
n-Butyl acetate	**Department of Labor Inspection, Chemical Agents (Cyprus, 11/2025)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Ethyl acetate	**Department of Labor Inspection, Chemical Agents (Cyprus, 11/2025)** STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³.
2-Methoxy-1-methylethyl acetate	**Department of Labor Inspection, Chemical Agents (Cyprus, 11/2025)** 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.
2-Butoxyethanol	**Department of Labor Inspection, Chemical Agents (Cyprus, 11/2025)** Absorbed through skin. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20 ppm.

SECTION 8: Exposure controls/personal protection

	TWA 8 hours: 98 mg/m³.
Methyl methacrylate	**Department of Labor Inspection, Chemical Agents (Cyprus, 11/2025)** STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
n-Butyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Ethyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** TWA 8 hours: 700 mg/m³. TWA 8 hours: 191.1 ppm. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 245.7 ppm.
2-Methoxy-1-methylethyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** Absorbed through skin. TWA 8 hours: 275 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 100 ppm.
2-Butoxyethanol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** Absorbed through skin. TWA 8 hours: 98 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 200 mg/m³. STEL 15 minutes: 40.7 ppm.
Methyl methacrylate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** Sensitiser. TWA 8 hours: 50 mg/m³. TWA 8 hours: 12 ppm. STEL 15 minutes: 150 mg/m³. STEL 15 minutes: 36 ppm.
Maleic anhydride	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 11/2025)** Sensitiser. TWA 8 hours: 1 mg/m³. STEL 15 minutes: 2 mg/m³.
n-Butyl acetate	**Working Environment Authority (Denmark, 11/2025) [butylacetat, alle isomerer]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Ethyl acetate	**Working Environment Authority (Denmark, 11/2025)** TWA 8 hours: 150 ppm. TWA 8 hours: 540 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.
2-Methoxy-1-methylethyl acetate	**Working Environment Authority (Denmark, 11/2025) [2-methoxy-1-methylethylacetat]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 100 ppm.
2-Butoxyethanol	**Working Environment Authority (Denmark, 11/2025)** Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 246 mg/m³. STEL 15 minutes: 50 ppm.

SECTION 8: Exposure controls/personal protection

Methyl methacrylate	**Working Environment Authority (Denmark, 11/2025)** Absorbed through skin. TWA 8 hours: 25 ppm. TWA 8 hours: 102 mg/m³. STEL 15 minutes: 100 ppm.
Maleic anhydride	**Working Environment Authority (Denmark, 11/2025)** TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m³. STEL 15 minutes: 0.8 mg/m³. STEL 15 minutes: 0.2 ppm.
n-Butyl acetate	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Ethyl acetate	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** TWA 8 hours: 500 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 1100 mg/m³. STEL 15 minutes: 300 ppm.
2-Methoxy-1-methylethyl acetate	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** Absorbed through skin , Sensitiser. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³. TWA 8 hours: 275 mg/m³. TWA 8 hours: 50 ppm.
2-Butoxyethanol	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** Absorbed through skin , Sensitiser. TWA 8 hours: 98 mg/m³. TWA 8 hours: 20 ppm. STEL 15 minutes: 246 mg/m³. STEL 15 minutes: 50 ppm.
Methyl methacrylate	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** Sensitiser. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.
Maleic anhydride	**Occupational exposure limits, Regulation No. 293 (Estonia, 1/2026)** Sensitiser. TWA 8 hours: 1.2 mg/m³. TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 0.6 ppm.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**EU OEL (Europe, 1/2022)** TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.
n-Butyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** TWA 8 hours: 150 ppm. TWA 8 hours: 720 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 960 mg/m³.
Ethyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** TWA 8 hours: 200 ppm. TWA 8 hours: 730 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1470 mg/m³.
2-Methoxy-1-methylethyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** 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.
2-Butoxyethanol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** 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.
Methyl methacrylate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** TWA 8 hours: 10 ppm. TWA 8 hours: 42 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 210 mg/m³.
Maleic anhydride	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 3/2026)** TWA 8 hours: 0.03 ppm. TWA 8 hours: 0.1 mg/m³. CEIL: 0.05 ppm. CEIL: 0.2 mg/m³.
n-Butyl acetate	**Ministry of Labor (France, 1/2026)** 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)
Ethyl acetate	**Ministry of Labor (France, 1/2026)** 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)
2-Methoxy-1-methylethyl acetate	**Ministry of Labor (France, 1/2026)** Absorbed through skin. 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)
2-Butoxyethanol	**Ministry of Labor (France, 1/2026)** Absorbed through skin. 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)
Methyl methacrylate	**Ministry of Labor (France, 1/2026)** 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)
Maleic anhydride	**Ministry of Labor (France, 1/2026)** Sensitiser. STEL 15 minutes: 1 mg/m³. Notes: Permissible limit values (circulars)
n-Butyl acetate	**TRGS 900 OEL (Germany, 12/2025)** TWA 8 hours: 300 mg/m³. TWA 8 hours: 62 ppm. PEAK 15 minutes: 600 mg/m³. PEAK 15 minutes: 124 ppm. **DFG MAC-values list (Germany, 7/2025)** 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].
Ethyl acetate	**TRGS 900 OEL (Germany, 12/2025)** TWA 8 hours: 730 mg/m³. PEAK 15 minutes: 1460 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 400 ppm. **DFG MAC-values list (Germany, 7/2025)** 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].
2-Methoxy-1-methylethyl acetate	**TRGS 900 OEL (Germany, 12/2025)** TWA 8 hours: 270 mg/m³. PEAK 15 minutes: 270 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm. **DFG MAC-values list (Germany, 7/2025)** 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].
2-Butoxyethanol	**TRGS 900 OEL (Germany, 12/2025)** 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. **DFG MAC-values list (Germany, 7/2025)** Develop C. Absorbed

SECTION 8: Exposure controls/personal protection

	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].
Methyl methacrylate	**TRGS 900 OEL (Germany, 12/2025)** TWA 8 hours: 210 mg/m³. PEAK 15 minutes: 420 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 100 ppm. **DFG MAC-values list (Germany, 7/2025)** Develop C. Skin sensitiser. TWA 8 hours: 50 ml/m³. 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].
Maleic anhydride	**TRGS 900 OEL (Germany, 12/2025)** 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, 7/2025)** Develop C. Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.02 ppm. CEIL: 0.05 ml/m³. TWA 8 hours: 0.081 mg/m³. CEIL: 0.2 mg/m³. PEAK 15 minutes: 0.081 mg/m³ 4 times per shift [Interval: 1 hour]. PEAK 15 minutes: 0.02 ppm 4 times per shift [Interval: 1 hour].
n-Butyl acetate	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 0.25 ppm. TWA 8 hours: 1 mg/m³.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** Sensitiser. TWA 8 hours: 241 mg/m³. PEAK 15 minutes: 723 mg/m³. PEAK 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Ethyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** Sensitiser. TWA 8 hours: 734 mg/m³. PEAK 15 minutes: 1468 mg/m³. PEAK 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.
2-Methoxy-1-methylethyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** TWA 8 hours: 275 mg/m³. PEAK 15 minutes: 550 mg/m³. PEAK 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
2-Butoxyethanol	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** Absorbed through skin. TWA 8 hours: 98 mg/m³. PEAK 15 minutes: 246 mg/m³. PEAK 15 minutes: 50 ppm. TWA 8 hours: 20 ppm.
Methyl methacrylate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** Absorbed through skin , Sensitiser. TWA 8 hours: 208 mg/m³. PEAK 15 minutes: 415 mg/m³. PEAK 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2025)** Sensitiser. TWA 8 hours: 0.08 mg/m³. PEAK 15 minutes: 0.08 mg/m³. PEAK 15 minutes: 0.2 ppm. TWA 8 hours: 0.2 ppm.
n-Butyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [bútýlasetat, allir ísómerar]** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Ethyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** TWA 8 hours: 540 mg/m³. TWA 8 hours: 150 ppm.
2-Methoxy-1-methylethyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 275 mg/m³. 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/m³. STEL 15 minutes: 50 ppm. TWA 8 hours: 100 mg/m³. TWA 8 hours: 20 ppm.
Methyl methacrylate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin , Sensitiser. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Sensitiser. TWA 8 hours: 0.4 mg/m³. TWA 8 hours: 0.1 ppm.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 241 mg/m³. OELV 15 minutes: 150 ppm. OELV 15 minutes: 723 mg/m³.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**NAOSH (Ireland, 4/2024)** Sensitiser. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 15 minutes: 100 ppm.
Maleic anhydride	**NAOSH (Ireland, 4/2024)** Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 0.01 ppm. Form: The Inhalable Fraction and Vapour note is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases..
n-Butyl acetate	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Short Term 15 minutes: 150 ppm. Short Term 15 minutes: 723 mg/m³. Limit value 8 hours: 50 ppm. Limit value 8 hours: 241 mg/m³.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**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.
n-Butyl acetate	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** TWA 8 hours: 200 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 54 ppm.
2-Methoxy-1-methylethyl acetate	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** 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.
2-Butoxyethanol	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** 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.
Methyl methacrylate	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** TWA 8 hours: 10 mg/m³.
Maleic anhydride	**Ministers Cabinet Regulations Nr.325 (2007) - AER (Latvia, 3/2026)** TWA 8 hours: 1 mg/m³.
n-Butyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Ethyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** TWA 8 hours: 500 mg/m³. TWA 8 hours: 150 ppm. CEIL: 1100 mg/m³. CEIL: 300 ppm.
2-Methoxy-1-methylethyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** 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.
2-Butoxyethanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** 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.
Methyl methacrylate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** Sensitiser. TWA 8 hours: 208 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 416 mg/m³. STEL 15 minutes: 100 ppm.
Maleic anhydride	**Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2025)** Sensitiser. TWA 8 hours: 1.2 mg/m³.

	TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m³. STEL 15 minutes: 0.6 ppm.
n-Butyl acetate	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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. STEL 15 minutes: 550 mg/m³.
2-Butoxyethanol	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** 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.
Methyl methacrylate	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**EU OEL (Europe, 1/2022)** TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.
n-Butyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 3/2026)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Ethyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 3/2026)**

	STEL 15 minutes: 1468 mg/m³. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.
2-Methoxy-1-methylethyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 3/2026)** TWA 8 hours: 550 mg/m³. TWA 8 hours: 100 ppm.
2-Butoxyethanol	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 3/2026)** Absorbed through skin. TWA 8 hours: 100 mg/m³. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20.4 ppm. STEL 15 minutes: 50 ppm.
Methyl methacrylate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 3/2026)** TWA 8 hours: 205 mg/m³. STEL 15 minutes: 410 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
n-Butyl acetate	**FOR-2011-12-06-1358 (Norway, 12/2025)** STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
Ethyl acetate	**FOR-2011-12-06-1358 (Norway, 12/2025)** TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.
2-Methoxy-1-methylethyl acetate	**FOR-2011-12-06-1358 (Norway, 12/2025)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 270 mg/m³.
2-Butoxyethanol	**FOR-2011-12-06-1358 (Norway, 12/2025)** Absorbed through skin. TWA 8 hours: 10 ppm. TWA 8 hours: 50 mg/m³.
Methyl methacrylate	**FOR-2011-12-06-1358 (Norway, 12/2025)** Sensitiser. TWA 8 hours: 25 ppm. TWA 8 hours: 100 mg/m³. STEL 15 minutes: 400 mg/m³. STEL 15 minutes: 100 ppm.
Maleic anhydride	**FOR-2011-12-06-1358 (Norway, 12/2025)** Sensitiser. TWA 8 hours: 0.2 ppm. TWA 8 hours: 0.8 mg/m³.
n-Butyl acetate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 4/2026)** TWA 8 hours: 240 mg/m³. STEL 15 minutes: 720 mg/m³.
Ethyl acetate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 4/2026)** TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm. TWA 8 hours: 200 ppm.
2-Methoxy-1-methylethyl acetate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations**

	and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 4/2026) Absorbed through skin. TWA 8 hours: 260 mg/m³. STEL 15 minutes: 520 mg/m³.
2-Butoxyethanol	**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, 4/2026)** Absorbed through skin. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 200 mg/m³.
Methyl methacrylate	**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, 4/2026)** TWA 8 hours: 100 mg/m³. STEL 15 minutes: 300 mg/m³.
Maleic anhydride	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 4/2026)** Absorbed through skin. TWA 8 hours: 0.5 mg/m³. STEL 15 minutes: 1 mg/m³.
n-Butyl acetate	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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. STEL 15 minutes: 50 ppm. STEL 15 minutes: 246 mg/m³. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³.
Methyl methacrylate	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. Sensitiser. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)**

	STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapor.
n-Butyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** VLA 8 hours: 241 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 723 mg/m³. Short term 15 minutes: 150 ppm.
Ethyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** VLA 8 hours: 734 mg/m³. VLA 8 hours: 200 ppm. Short term 15 minutes: 1468 mg/m³. Short term 15 minutes: 400 ppm.
2-Methoxy-1-methylethyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** 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.
2-Butoxyethanol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** 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.
Methyl methacrylate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** VLA 8 hours: 205 mg/m³. Short term 15 minutes: 410 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 100 ppm.
Maleic anhydride	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 2/2026)** VLA 8 hours: 1 mg/m³. VLA 8 hours: 0.25 ppm. Short term 15 minutes: 3 mg/m³. Short term 15 minutes: 0.75 ppm.
n-Butyl acetate	**Government regulation SR c. 355/2006 (Slovakia, 6/2024) [butylacetáty]** Inhalation sensitiser. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Ethyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Sensitiser , Inhalation sensitiser. STEL 15 minutes: 100 ppm. TWA 8 hours: 50 ppm.
Maleic anhydride	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Sensitiser , Inhalation sensitiser. TWA 8 hours: 0.41 mg/m³. TWA 8 hours: 0.1 ppm.
n-Butyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].
Ethyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].
2-Methoxy-1-methylethyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].
2-Butoxyethanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].
Methyl methacrylate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].
Maleic anhydride	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** 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].

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**National institute of occupational safety and health (Spain, 2/2026)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Ethyl acetate	**National institute of occupational safety and health (Spain, 2/2026)** TWA 8 hours: 200 ppm. TWA 8 hours: 734 mg/m³. STEL 15 minutes: 1468 mg/m³. STEL 15 minutes: 400 ppm.
2-Methoxy-1-methylethyl acetate	**National institute of occupational safety and health (Spain, 2/2026)** 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.
2-Butoxyethanol	**National institute of occupational safety and health (Spain, 2/2026)** Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 98 mg/m³. STEL 15 minutes: 245 mg/m³. STEL 15 minutes: 50 ppm.
Methyl methacrylate	**National institute of occupational safety and health (Spain, 2/2026)** Skin sensitiser. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.
Maleic anhydride	**National institute of occupational safety and health (Spain, 2/2026)** Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m³.
n-Butyl acetate	**Work environment authority Regulation 2023:14 (Sweden, 6/2025) [butyl acetate]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Ethyl acetate	**Work environment authority Regulation 2023:14 (Sweden, 6/2025)** TWA 8 hours: 150 ppm. TWA 8 hours: 550 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 1100 mg/m³.
2-Methoxy-1-methylethyl acetate	**Work environment authority Regulation 2023:14 (Sweden, 6/2025)** 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.
2-Butoxyethanol	**Work environment authority Regulation 2023:14 (Sweden, 6/2025)** 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.
Methyl methacrylate	**Work environment authority Regulation 2023:14 (Sweden, 6/2025)** Skin sensitiser. TWA 8 hours: 50 ppm. TWA 8 hours: 200 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 400 mg/m³.
Maleic anhydride	**Work environment authority Regulation 2023:14 (Sweden,**

	6/2025) Skin sensitiser , Inhalation sensitiser. TWA 8 hours: 0.05 ppm. TWA 8 hours: 0.2 mg/m³. STEL 15 minutes: 0.1 ppm. STEL 15 minutes: 0.4 mg/m³.
n-Butyl acetate	**SUVA (Switzerland, 1/2026)** TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 720 mg/m³.
Ethyl acetate	**SUVA (Switzerland, 1/2026)** STEL 15 minutes: 400 ppm. STEL 15 minutes: 1460 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 730 mg/m³.
2-Methoxy-1-methylethyl acetate	**SUVA (Switzerland, 1/2026)** TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 275 mg/m³.
2-Butoxyethanol	**SUVA (Switzerland, 1/2026)** 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.
Methyl methacrylate	**SUVA (Switzerland, 1/2026)** Sensitiser. TWA 8 hours: 50 ppm. TWA 8 hours: 210 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 420 mg/m³.
Maleic anhydride	**SUVA (Switzerland, 1/2026)** Sensitiser. TWA 8 hours: 0.1 ppm. Form: vapour and aerosols. TWA 8 hours: 0.4 mg/m³. Form: vapour and aerosols. STEL 15 minutes: 0.1 ppm. Form: vapour and aerosols. STEL 15 minutes: 0.4 mg/m³. Form: vapour and aerosols.
n-Butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
Ethyl acetate	**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.
2-Butoxyethanol	**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.
Methyl methacrylate	**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.
Maleic anhydride	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Inhalation sensitiser. STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³.

Biological exposure indices

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure indices
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	**Government regulation of Czech Republic Limit Values of Biological Exposure Tests (Czech Republic, 10/2025)** 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. 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.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	**Biological limit values (BLV) - Labour Code / ANSES (France, 3/2026) [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).
2-Butoxyethanol	**DFG BEI-values list (Germany, 7/2025)** 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, 12/2025)** 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.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	**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.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	**Portuguese Institute of Quality (Portugal, 11/2014)** BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.
No exposure indices known.	
No exposure indices known.	

2-Butoxyethanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2025)** BLV: 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.
2-Butoxyethanol	**National institute of occupational safety and health (Spain, 2/2026)** BLV: 200 mg/g creatinine, butoxyacetic acid [in urine]. Sampling time: end of shift.
No exposure indices known.	
2-Butoxyethanol	**SUVA (Switzerland, 1/2026)** BEI: 150 mg/g creatinine, 2-butoxy acetic acid (after hydrolisis) [in urine]. Sampling time: immediately after exposure or after working hours. In case of long-term exposure: after more than one shift.
2-Butoxyethanol	**EH40/2005 BMGVs (United Kingdom (UK), 1/2020)** BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine]. Sampling time: post shift.

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

DNELs/DMELs

Product/ingredient name	Result
n-Butyl acetate	**DNEL - General population - Long term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 3.4 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Dermal** 6 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 7 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 11 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 12 mg/m³ Effects: Systemic **DNEL - General population - Long term - Inhalation** 35.7 mg/m³ Effects: Local

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

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

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

DNEL - Workers - Long term - Inhalation
300 mg/m³
Effects: Local

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

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

Ethyl acetate

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
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 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
Methyl methacrylate	**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

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

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

Fatty acids, C14-18 and C16-18-unsatd., maleated

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

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

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

Maleic anhydride

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

DNEL - General population - Long term - Oral
0.06 mg/kg bw/day

Effects: Systemic

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

DNEL - Workers - Long term - Inhalation
0.081 mg/m³
Effects: Local

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

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

DNEL - General population - Short term - Dermal
0.1 mg/kg bw/day
Effects: Systemic

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

DNEL - Workers - Short term - Dermal
0.2 mg/kg bw/day
Effects: Systemic

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

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

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

PNECs

Not available.

8.2 Exposure controls

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

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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.

SECTION 8: Exposure controls/personal protection

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	
n-Butyl acetate	126	258.8	OECD 103

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.4% (n-butyl acetate)
Upper: 11.5% (ethyl acetate)

Flash point : Closed cup: -1°C (30.2°F)

SECTION 9: Physical and chemical properties

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 :

	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Ethyl acetate	81.59163	10.9				
n-Butyl acetate	11.25096	1.5	DIN EN 13016-2			

Relative density : Not available.

Density : 0.9 g/cm³

Vapour density : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

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

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

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

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

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result
n-Butyl acetate	**Rat - Oral - LD50** 10760 mg/kg EU **Rabbit - Dermal - LD50** 14112 mg/kg **Rat - Inhalation - LC50 Vapour** 0.74 mg/l [4 hours]
Ethyl acetate	**Rat - Oral - LD50** 5620 mg/kg
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** 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 3990-40	26666.7	N/A	N/A	66.7	N/A
n-Butyl acetate	10760	14112	N/A	N/A	N/A
Ethyl acetate	5620	N/A	N/A	N/A	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	Result

n-Butyl acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours 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	Result
n-Butyl acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
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	Result
n-Butyl acetate	STOT SE 3, H336 (Narcotic effects)
Ethyl acetate	STOT SE 3, H336 (Narcotic effects)
Methyl methacrylate	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye 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

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

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 : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

SECTION 11: Toxicological information

Not available.

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

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
n-Butyl acetate	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g 18000 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina* 32 mg/l [48 hours] Effect: Mortality
Ethyl acetate	**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
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
n-Butyl acetate	2.3	-	Low
Ethyl acetate	0.68	30	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	Value
n-Butyl acetate	logKoc: 1.5 Koc: 33.2139
Ethyl acetate	logKoc: 1.3 Koc: 18.1744
2-Methoxy-1-methylethyl acetate	logKoc: 0.36 Koc: 2.31363
2-Butoxyethanol	logKoc: 1.8 Koc: 67.3685
Methyl methacrylate	logKoc: 1.2 Koc: 16.6906
Maleic anhydride	logKoc: 1.1 Koc: 11.4841

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
n-Butyl acetate	No	No	No	No	No	No	No
Ethyl acetate	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
n-Butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
Ethyl acetate	No	N/A	No	No	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]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-Butyl acetate	No	No	No	No	No	No	No
Ethyl acetate	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

SECTION 12: Ecological information

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

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)

SECTION 14: Transport information

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 3990-40	≥90	3

Labelling :

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : 3902 - Polymers of propylene or of other olefins.

Total percentage of synthetic polymer microparticles : 0.5%

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

Other EU regulations

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

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

Explosive precursors : Not applicable.

(EC) No 273/2004 on drug precursors

Not listed.

(EC) No 111/2005 Trade between the Union and third countries in drug precursors

Ingredient name	%	Status
Toluene and its salts	≤0.0015	Category 3

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

SECTION 15: Regulatory information

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. 1347/2025

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

MAL-code : 3-1

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

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

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

MAL-code: 3-1

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

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

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

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

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

- Air-supplied full mask must be worn.

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

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

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

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

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

*See Regulations.

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

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

List of undesirable substances : Not listed

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

Finland

France

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

n-Butyl acetate	RG 84
Ethyl acetate	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 : 1

Technical instruction on air quality control (TA Luft)

Number [Class]	Description	%
5.2.1	Total dust	6.7
5.2.5	Organic substances	93.3
5.2.5 [I]	Organic substances	77.8

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

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

SECTION 15: Regulatory information

Ingredient name	Carcinogen	Mutagen	Reproductive toxicity - Fertility	Reproductive toxicity - Development	Harmful via breastfeeding
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): 77.5%

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

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

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

Full text of abbreviated H statements

SECTION 16: Other information

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H372	Causes 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
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
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 20/10/2026

Date of previous issue : 05/12/2025

Version : 1.02

SUPREMO KLARLACK 3990-40 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.