

SAFETY DATA SHEET



TEKNODUR COMBI 3440-05 - All variants

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

1.1 Product identifier

Product name : TEKNODUR COMBI 3440-05 - 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

National contact

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

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : In an emergency, call 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Flam. Liq. 3, H226

Eye Irrit. 2, H319

STOT SE 3, H336

Aquatic Chronic 2, H411

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 : Warning

Hazard statements : H226 - Flammable liquid and vapour.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

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


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TEKNODUR COMBI 3440-05 - All variants

Label No : 50885

SECTION 2: Hazards identification


Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	:  Contains: n-Butyl acetate and 2-Methoxy-1-methylethyl acetate
Supplemental label elements	: Contains Maleic anhydride. May produce an allergic reaction. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
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
 Titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≥10 - ≤25	Carc. 2, H351 (inhalation)	-	[1] [*]
n-Butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - ≤25	Flam. Liq. 3, H226 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	≤10	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
Trizinc bis(orthophosphate)	REACH #: 01-2119485044-40 EC: 231-944-3 CAS: 7779-90-0 Index: 030-011-00-6	≤5	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
Phosphoric acid, polymer with 4,4'-(1-methylethylidene)bis[phenol] and 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bis[oxirane]	-	<3	Flam. Liq. 3, H226 Eye Dam. 1, H318	-	[1]
Isobutyl acetate	REACH #: 01-2119488971-22 EC: 203-745-1 CAS: 110-19-0	≤3	Flam. Liq. 2, H225 STOT SE 3, H336 EUH066	-	[1] [2]

SECTION 3: Composition/information on ingredients

2-Butoxyethanol	Index: 607-026-00-7 REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	<1	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]
Methylisobutylketone	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≤0.3	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
propylidynetrimethanol	REACH #: 01-2119486799-10 EC: 201-074-9 CAS: 77-99-6	≤0.3	Repr. 2, H361fd	-	[1]
Maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	<0.001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix.

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

- : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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** : No specific data.
- 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, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : 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. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

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

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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

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

SECTION 7: Handling and storage

Advice on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c E2	5000 tonne 200 tonne	50000 tonne 500 tonne

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, 4/2021). [] CEIL: 480 mg/m ³ 15 minutes. CEIL: 100 ppm 15 minutes. TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m ³ 8 hours. CEIL: 100 ppm, 8 times per shift, 5 minutes. CEIL: 550 mg/m ³ , 8 times per shift, 5 minutes.
Isobutyl acetate	Regulation on Limit Values - MAC (Austria, 4/2021). [] CEIL: 480 mg/m ³ 15 minutes. CEIL: 100 ppm 15 minutes. TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Methylisobutylketone	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. PEAK: 50 ppm, 4 times per shift, 15 minutes. PEAK: 208 mg/m ³ , 4 times per shift, 15 minutes.
Maleic anhydride	Regulation on Limit Values - MAC (Austria, 4/2021). Skin sensitiser. Inhalation sensitiser. TWA: 0.1 ppm 8 hours. TWA: 0.4 mg/m ³ 8 hours. CEIL: 0.2 ppm, 8 times per shift, 5 minutes.

SECTION 8: Exposure controls/personal protection

 n-Butyl acetate

CEIL: 0.8 mg/m³, 8 times per shift, 5 minutes.

Limit values (Belgium, 5/2021). []

STEL: 712 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 238 mg/m³ 8 hours.

TWA: 50 ppm 8 hours.

2-Methoxy-1-methylethyl acetate

Limit values (Belgium, 5/2021). Absorbed through skin.

TWA: 50 ppm 8 hours.

TWA: 275 mg/m³ 8 hours.

STEL: 100 ppm 15 minutes.

STEL: 550 mg/m³ 15 minutes.

Isobutyl acetate

Limit values (Belgium, 5/2021). []

STEL: 712 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 238 mg/m³ 8 hours.

TWA: 50 ppm 8 hours.

Methylisobutylketone

Limit values (Belgium, 5/2021).

TWA: 20 ppm 8 hours.

TWA: 83 mg/m³ 8 hours.

STEL: 50 ppm 15 minutes.

STEL: 208 mg/m³ 15 minutes.

Maleic anhydride

Limit values (Belgium, 5/2021).

TWA: 0.0025 ppm 8 hours. Form: vapour and aerosol

TWA: 0.01 mg/m³ 8 hours. Form: vapour and aerosol

n-Butyl acetate

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).

Limit value 8 hours: 241 mg/m³ 8 hours.

Limit value 15 min: 723 mg/m³ 15 minutes.

Limit value 15 min: 150 ppm 15 minutes.

Limit value 8 hours: 50 ppm 8 hours.

2-Methoxy-1-methylethyl acetate

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021). Absorbed through skin.

Limit value 8 hours: 275 mg/m³ 8 hours.

Limit value 15 min: 550 mg/m³ 15 minutes.

Limit value 15 min: 100 ppm 15 minutes.

Limit value 8 hours: 50 ppm 8 hours.

Isobutyl acetate

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).

Limit value 15 min: 150 ppm 15 minutes.

Limit value 15 min: 723 mg/m³ 15 minutes.

Limit value 8 hours: 50 ppm 8 hours.

Limit value 8 hours: 241 mg/m³ 8 hours.

Methylisobutylketone

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).

Limit value 8 hours: 50 mg/m³ 8 hours.

Limit value 15 min: 200 mg/m³ 15 minutes.

propylidynetrimethanol

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).

Limit value 8 hours: 50 mg/m³ 8 hours.

Maleic anhydride

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).

Limit value 8 hours: 1 mg/m³ 8 hours.

 n-Butyl acetate

Ministry of Economy, Labour and Entrepreneurship ELV/ STELV (Croatia, 1/2021).

STELV: 723 mg/m³ 15 minutes.

STELV: 150 ppm 15 minutes.

ELV: 241 mg/m³ 8 hours.

ELV: 50 ppm 8 hours.

2-Methoxy-1-methylethyl acetate



Ministry of Economy, Labour and Entrepreneurship ELV/ STELV (Croatia, 1/2021). Absorbed through skin.

STELV: 550 mg/m³ 15 minutes.



STELV: 100 ppm 15 minutes.

ELV: 275 mg/m³ 8 hours.

SECTION 8: Exposure controls/personal protection

Isobutyl acetate	ELV: 50 ppm 8 hours. Ministry of Economy, Labour and Entrepreneurship ELV/STELV (Croatia, 1/2021). STELV: 723 mg/m ³ 15 minutes. STELV: 150 ppm 15 minutes. ELV: 241 mg/m ³ 8 hours. ELV: 50 ppm 8 hours.
2-Butoxyethanol	Ministry of Economy, Labour and Entrepreneurship ELV/STELV (Croatia, 1/2021). Absorbed through skin. STELV: 246 mg/m ³ 15 minutes. STELV: 50 ppm 15 minutes. ELV: 98 mg/m ³ 8 hours. ELV: 20 ppm 8 hours.
Methylisobutylketone	Ministry of Economy, Labour and Entrepreneurship ELV/STELV (Croatia, 1/2021). STELV: 208 mg/m ³ 15 minutes. STELV: 50 ppm 15 minutes. ELV: 83 mg/m ³ 8 hours. ELV: 20 ppm 8 hours.
Maleic anhydride	Ministry of Economy, Labour and Entrepreneurship ELV/STELV (Croatia, 1/2021). Skin sensitiser. Inhalation sensitiser. STELV: 0.2 ppm 15 minutes. ELV: 0.41 mg/m ³ 8 hours. STELV: 0.8 mg/m ³ 15 minutes. ELV: 0.1 ppm 8 hours.
 n-Butyl acetate	EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes. TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 50 ppm 8 hours. TWA: 275 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m ³ 15 minutes.
Isobutyl acetate	EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes. TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Methylisobutylketone	EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m ³ 15 minutes.
 n-Butyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). TWA: 241 mg/m ³ 8 hours. STEL: 723 mg/m ³ 15 minutes. STEL: 149.661 ppm 15 minutes. TWA: 49.887 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). Absorbed through skin. TWA: 270 mg/m ³ 8 hours. TWA: 49.14 ppm 8 hours. STEL: 550 mg/m ³ 15 minutes. STEL: 100.1 ppm 15 minutes.
Isobutyl acetate	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). TWA: 241 mg/m ³ 8 hours.



SECTION 8: Exposure controls/personal protection

Methylisobutylketone	<p>STEL: 723 mg/m³ 15 minutes. STEL: 149.661 ppm 15 minutes. TWA: 49.887 ppm 8 hours.</p> <p>Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). Absorbed through skin. TWA: 80 mg/m³ 8 hours. TWA: 19.2 ppm 8 hours. STEL: 200 mg/m³ 15 minutes. STEL: 48 ppm 15 minutes.</p>
Maleic anhydride	<p>Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). Skin sensitiser. TWA: 1 mg/m³ 8 hours. TWA: 0.245 ppm 8 hours. STEL: 2 mg/m³ 15 minutes. STEL: 0.49 ppm 15 minutes.</p>
 n-Butyl acetate	<p>Working Environment Authority (Denmark, 6/2022). [Butyl acetate, all isomers] TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>Working Environment Authority (Denmark, 6/2022). [2-Methoxy-1-methylethyl acetate] Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes.</p>
Isobutyl acetate	<p>Working Environment Authority (Denmark, 6/2022). [Butyl acetate, all isomers] TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.</p>
2-Butoxyethanol	<p>Working Environment Authority (Denmark, 6/2022). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 98 mg/m³ 8 hours. STEL: 246 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</p>
Methylisobutylketone	<p>Working Environment Authority (Denmark, 6/2022). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 83 mg/m³ 8 hours. STEL: 208 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</p>
Maleic anhydride	<p>Working Environment Authority (Denmark, 6/2022). TWA: 0.1 ppm 8 hours. TWA: 0.4 mg/m³ 8 hours. STEL: 0.8 mg/m³ 15 minutes. STEL: 0.2 ppm 15 minutes.</p>
 n-Butyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022). STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p>
2-Methoxy-1-methylethyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022). Absorbed through skin. Skin sensitiser. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p>
Isobutyl acetate	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022).</p>


SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	<p>STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p> <p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022). Absorbed through skin. Skin sensitiser.</p> <p>TWA: 98 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 246 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</p>
Methylisobutylketone	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022).</p> <p>TWA: 83 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 208 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</p>
Maleic anhydride	<p>Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022). Skin sensitiser.</p> <p>TWA: 1.2 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. STEL: 2.5 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes.</p>
n-Butyl acetate	<p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values</p> <p>STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p>
2-Methoxy-1-methylethyl acetate	<p>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values</p> <p>TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values</p> <p>STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p>
2-Butoxyethanol	<p>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values</p> <p>TWA: 20 ppm 8 hours. TWA: 98 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 246 mg/m³ 15 minutes.</p>
Methylisobutylketone	<p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values</p> <p>TWA: 20 ppm 8 hours. TWA: 83 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m³ 15 minutes.</p>
n-Butyl acetate	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020).</p> <p>TWA: 150 ppm 8 hours. TWA: 720 mg/m³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 960 mg/m³ 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020). Absorbed through skin.</p> <p>TWA: 50 ppm 8 hours. TWA: 270 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p>



SECTION 8: Exposure controls/personal protection

Isobutyl acetate	Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020). [] TWA: 50 ppm 8 hours. TWA: 240 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 725 mg/m ³ 15 minutes.
Methylisobutylketone	Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020). TWA: 20 ppm 8 hours. TWA: 80 mg/m ³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 210 mg/m ³ 15 minutes.
Maleic anhydride	Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020). TWA: 0.1 ppm 8 hours. TWA: 0.41 mg/m ³ 8 hours. CEIL: 0.2 ppm CEIL: 0.81 mg/m ³
 Butyl acetate	Ministry of Labor (France, 10/2022). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes.
2-Methoxy-1-methylethyl acetate	Ministry of Labor (France, 10/2022). Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL: 550 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Isobutyl acetate	Ministry of Labor (France, 10/2022). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes.
2-Butoxyethanol	Ministry of Labor (France, 10/2022). Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA: 10 ppm 8 hours. TWA: 49 mg/m ³ 8 hours. STEL: 246 mg/m ³ 15 minutes. STEL: 50 ppm 15 minutes.
Methylisobutylketone	Ministry of Labor (France, 10/2022). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. STEL: 208 mg/m ³ 15 minutes. STEL: 50 ppm 15 minutes.
Maleic anhydride	Ministry of Labor (France, 10/2022). Sensitization potential. Notes: Permissible limit values (circulars) STEL: 1 mg/m ³ 15 minutes.
 Butyl acetate	DFG MAC-values list (Germany, 10/2021). TWA: 100 ppm 8 hours. PEAK: 200 ppm, 4 times per shift, 15 minutes. TWA: 480 mg/m ³ 8 hours. PEAK: 960 mg/m ³ , 4 times per shift, 15 minutes. TRGS 900 OEL (Germany, 7/2021). TWA: 300 mg/m ³ 8 hours. TWA: 62 ppm 8 hours. PEAK: 600 mg/m ³ 15 minutes. PEAK: 124 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	TRGS 900 OEL (Germany, 7/2021).



SECTION 8: Exposure controls/personal protection

Isobutyl acetate	<p>TWA: 270 mg/m³ 8 hours. PEAK: 270 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. PEAK: 50 ppm 15 minutes. DFG MAC-values list (Germany, 10/2021). TWA: 50 ppm 8 hours. PEAK: 50 ppm, 4 times per shift, 15 minutes. TWA: 270 mg/m³ 8 hours. PEAK: 270 mg/m³, 4 times per shift, 15 minutes. DFG MAC-values list (Germany, 10/2021). TWA: 100 ppm 8 hours. PEAK: 200 ppm, 4 times per shift, 15 minutes. TWA: 480 mg/m³ 8 hours. PEAK: 960 mg/m³, 4 times per shift, 15 minutes. TRGS 900 OEL (Germany, 7/2021). TWA: 300 mg/m³ 8 hours. TWA: 62 ppm 8 hours. PEAK: 600 mg/m³ 15 minutes. PEAK: 124 ppm 15 minutes.</p>
Methylisobutylketone	<p>TRGS 900 OEL (Germany, 7/2021). Absorbed through skin. TWA: 83 mg/m³ 8 hours. PEAK: 166 mg/m³ 15 minutes. TWA: 20 ppm 8 hours. PEAK: 40 ppm 15 minutes. DFG MAC-values list (Germany, 10/2021). Absorbed through skin. TWA: 20 ppm 8 hours. PEAK: 40 ppm, 4 times per shift, 15 minutes. TWA: 83 mg/m³ 8 hours. PEAK: 166 mg/m³, 4 times per shift, 15 minutes. TRGS 900 OEL (Germany, 7/2021). Skin sensitiser. Inhalation sensitiser. TWA: 0.081 mg/m³ 8 hours. CEIL: 0.2025 mg/m³ TWA: 0.02 ppm 8 hours. CEIL: 0.05 ppm PEAK: 0.081 mg/m³ 15 minutes. PEAK: 0.02 ppm 15 minutes. DFG MAC-values list (Germany, 10/2021). Skin sensitiser. Inhalation sensitiser. TWA: 0.02 ppm 8 hours. CEIL: 0.05 ml/m³ TWA: 0.081 mg/m³ 8 hours. CEIL: 0.2 mg/m³ PEAK: 0.081 mg/m³, 4 times per shift, 15 minutes. PEAK: 0.02 ppm, 4 times per shift, 15 minutes.</p>
Maleic anhydride	<p>Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes. Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes.</p>
 Butyl acetate	
2-Methoxy-1-methylethyl acetate	
Isobutyl acetate	



SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). Absorbed through skin. TWA: 25 ppm 8 hours. TWA: 120 mg/m ³ 8 hours.
Methylisobutylketone	Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). Absorbed through skin. TWA: 100 ppm 8 hours. TWA: 410 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 410 mg/m ³ 15 minutes.
Maleic anhydride	Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). TWA: 0.25 ppm 8 hours. TWA: 1 mg/m ³ 8 hours.
 n-Butyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Skin sensitiser. Inhalation sensitiser. TWA: 241 mg/m ³ 8 hours. PEAK: 723 mg/m ³ 15 minutes. PEAK: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). TWA: 275 mg/m ³ 8 hours. PEAK: 550 mg/m ³ 15 minutes. PEAK: 100 ppm 15 minutes. TWA: 50 ppm 8 hours.
Isobutyl acetate	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Skin sensitiser. Inhalation sensitiser. PEAK: 723 mg/m ³ 15 minutes. TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. PEAK: 150 ppm 15 minutes.
2-Butoxyethanol	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Absorbed through skin. Skin sensitiser. Inhalation sensitiser. TWA: 98 mg/m ³ 8 hours. PEAK: 246 mg/m ³ 15 minutes. PEAK: 50 ppm 15 minutes. TWA: 20 ppm 8 hours.
Methylisobutylketone	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). TWA: 83 mg/m ³ 8 hours. PEAK: 208 mg/m ³ 15 minutes. PEAK: 50 ppm 15 minutes. TWA: 20 ppm 8 hours.
Maleic anhydride	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Skin sensitiser. Inhalation sensitiser. TWA: 0.08 mg/m ³ 8 hours. PEAK: 0.08 mg/m ³ 15 minutes. PEAK: 0.2 ppm 15 minutes. TWA: 0.2 ppm 8 hours.
 n-Butyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). [butyl acetate, all isomers] TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. STEL: 723 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). Absorbed through skin. STEL: 550 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Isobutyl acetate	Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). [butyl acetate, all isomers] TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.




SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	<p>STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.</p> <p>Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). Absorbed through skin. STEL: 246 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes. TWA: 100 mg/m³ 8 hours. TWA: 20 ppm 8 hours.</p>
Methylisobutylketone	<p>Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). Absorbed through skin. STEL: 208 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes. TWA: 83 mg/m³ 8 hours. TWA: 20 ppm 8 hours.</p>
Maleic anhydride	<p>Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). Skin sensitiser. TWA: 0.4 mg/m³ 8 hours. TWA: 0.1 ppm 8 hours.</p>
 n-Butyl acetate	<p>NAOSH (Ireland, 5/2021). Notes: EU derived Occupational Exposure Limit Values OELV-8hr: 50 ppm 8 hours. OELV-8hr: 241 mg/m³ 8 hours. OELV-15min: 150 ppm 15 minutes. OELV-15min: 723 mg/m³ 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV-8hr: 50 ppm 8 hours. OELV-8hr: 275 mg/m³ 8 hours. OELV-15min: 100 ppm 15 minutes. OELV-15min: 550 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>NAOSH (Ireland, 5/2021). Notes: EU derived Occupational Exposure Limit Values OELV-15min: 723 mg/m³ 15 minutes. OELV-15min: 150 ppm 15 minutes. OELV-8hr: 241 mg/m³ 8 hours. OELV-8hr: 50 ppm 8 hours.</p>
Methylisobutylketone	<p>NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV-8hr: 20 ppm 8 hours. OELV-8hr: 83 mg/m³ 8 hours. OELV-15min: 50 ppm 15 minutes. OELV-15min: 208 mg/m³ 15 minutes.</p>
Maleic anhydride	<p>NAOSH (Ireland, 5/2021). Skin sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV-8hr: 0.01 ppm 8 hours. Form: The Inhalable Fraction and Vapour note is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases.</p>
 n-Butyl acetate	<p>EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p>
2-Methoxy-1-methylethyl acetate	<p>Legislative Decree No. 819/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020). Absorbed through skin. 8 hours: 50 ppm 8 hours. 8 hours: 275 mg/m³ 8 hours. Short Term: 100 ppm 15 minutes. Short Term: 550 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes.</p>



SECTION 8: Exposure controls/personal protection

Methylisobutylketone	<p>STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p> <p>Legislative Decree No. 819/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020). 8 hours: 20 ppm 8 hours. 8 hours: 83 mg/m³ 8 hours. Short Term: 50 ppm 15 minutes. Short Term: 208 mg/m³ 15 minutes.</p>
 n-Butyl acetate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). TWA: 241 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours.</p>
2-Methoxy-1-methylethyl acetate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p>
Methylisobutylketone	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). TWA: 83 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m³ 15 minutes.</p>
Maleic anhydride	<p>Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). TWA: 1 mg/m³ 8 hours.</p>
 n-Butyl acetate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). Absorbed through skin. TWA: 250 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 400 mg/m³ 15 minutes. STEL: 75 ppm 15 minutes.</p>
Isobutyl acetate	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p>
Methylisobutylketone	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). TWA: 83 mg/m³ 8 hours. TWA: 20 ppm 8 hours. STEL: 208 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.</p>
propylidynetrimethanol	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). CEIL: 5 ppm</p>
Maleic anhydride	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). Skin sensitiser. TWA: 1.2 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. STEL: 2.5 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes.</p>



SECTION 8: Exposure controls/personal protection

<p> Butyl acetate</p> <p>2-Methoxy-1-methylethyl acetate</p> <p>Isobutyl acetate</p> <p>Methylisobutylketone</p>	<p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021). STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p> <p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p> <p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021). STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.</p> <p>Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021). TWA: 20 ppm 8 hours. TWA: 83 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m³ 15 minutes.</p>
<p> Butyl acetate</p> <p>2-Methoxy-1-methylethyl acetate</p> <p>Isobutyl acetate</p> <p>2-Butoxyethanol</p> <p>Methylisobutylketone</p>	<p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p> <p>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p> <p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p> <p>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values TWA: 20 ppm 8 hours. TWA: 98 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 246 mg/m³ 15 minutes.</p> <p>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values TWA: 20 ppm 8 hours. TWA: 83 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m³ 15 minutes.</p>
<p> Butyl acetate</p> <p>2-Methoxy-1-methylethyl acetate</p> <p>Isobutyl acetate</p>	<p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 7/2021). OEL, 8-h TWA: 241 mg/m³ 8 hours. STEL, 15-min: 723 mg/m³ 15 minutes.</p> <p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 7/2021). OEL, 8-h TWA: 550 mg/m³ 8 hours.</p> <p>Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 7/2021). OEL, 8-h TWA: 241 mg/m³ 8 hours.</p>



SECTION 8: Exposure controls/personal protection

Methylisobutylketone	STEL, 15-min: 723 mg/m ³ 15 minutes. Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 7/2021). OEL, 8-h TWA: 104 mg/m ³ 8 hours. STEL, 15-min: 208 mg/m ³ 15 minutes.
 Butyl acetate	FOR-2011-12-06-1358 (Norway, 6/2021). STEL: 723 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. FOR-2011-12-06-1358 (Norway, 6/2021). Notes: indicative limit value TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	FOR-2011-12-06-1358 (Norway, 6/2021). Absorbed through skin. Notes: indicative limit value TWA: 50 ppm 8 hours. TWA: 270 mg/m ³ 8 hours.
Isobutyl acetate	FOR-2011-12-06-1358 (Norway, 6/2021). STEL: 723 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. FOR-2011-12-06-1358 (Norway, 6/2021). Notes: indicative limit value TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Methylisobutylketone	FOR-2011-12-06-1358 (Norway, 6/2021). Absorbed through skin. Notes: indicative limit value TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. FOR-2011-12-06-1358 (Norway, 6/2021). Absorbed through skin. STEL: 50 ppm 15 minutes. STEL: 208 mg/m ³ 15 minutes.
Maleic anhydride	FOR-2011-12-06-1358 (Norway, 6/2021). Skin sensitiser. TWA: 0.2 ppm 8 hours. TWA: 0.8 mg/m ³ 8 hours.
 Butyl acetate	Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). TWA: 240 mg/m ³ 8 hours. STEL: 720 mg/m ³ 15 minutes.
2-Methoxy-1-methylethyl acetate	Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). Absorbed through skin. TWA: 260 mg/m ³ 8 hours. STEL: 520 mg/m ³ 15 minutes.
Isobutyl acetate	Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). TWA: 240 mg/m ³ 8 hours. STEL: 720 mg/m ³ 15 minutes.
2-Butoxyethanol	Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). Absorbed through skin. TWA: 98 mg/m ³ 8 hours. STEL: 200 mg/m ³ 15 minutes.
Methylisobutylketone	Regulation of the Minister of Family, Labor and Social Policy



SECTION 8: Exposure controls/personal protection

Maleic anhydride	<p>of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021).</p> <p>TWA: 83 mg/m³ 8 hours. STEL: 200 mg/m³ 15 minutes.</p> <p>Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). Absorbed through skin.</p> <p>TWA: 0.5 mg/m³ 8 hours. STEL: 1 mg/m³ 15 minutes.</p>
 Butyl acetate	<p>Portuguese Institute of Quality (Portugal, 11/2014).</p> <p>TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values</p> <p>TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>Portuguese Institute of Quality (Portugal, 11/2014).</p> <p>TWA: 150 ppm 8 hours.</p>
2-Butoxyethanol	<p>Portuguese Institute of Quality (Portugal, 11/2014).</p> <p>TWA: 20 ppm 8 hours.</p>
Methylisobutylketone	<p>Portuguese Institute of Quality (Portugal, 11/2014).</p> <p>TWA: 20 ppm 8 hours. STEL: 75 ppm 15 minutes.</p>
Maleic anhydride	<p>Portuguese Institute of Quality (Portugal, 11/2014). Skin sensitizer.</p> <p>TWA: 0.01 mg/m³ 8 hours. Form: Inhalable fraction and vapor</p>
 Butyl acetate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).</p> <p>VLA: 241 mg/m³ 8 hours. VLA: 50 ppm 8 hours. Short term: 723 mg/m³ 15 minutes. Short term: 150 ppm 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). Absorbed through skin.</p> <p>VLA: 275 mg/m³ 8 hours. VLA: 50 ppm 8 hours. Short term: 550 mg/m³ 15 minutes. Short term: 100 ppm 15 minutes.</p>
Isobutyl acetate	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).</p> <p>VLA: 241 mg/m³ 8 hours. VLA: 50 ppm 8 hours. Short term: 723 mg/m³ 15 minutes. Short term: 150 ppm 15 minutes.</p>
Methylisobutylketone	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).</p> <p>VLA: 83 mg/m³ 8 hours. VLA: 20 ppm 8 hours. Short term: 208 mg/m³ 15 minutes. Short term: 50 ppm 15 minutes.</p>
Maleic anhydride	<p>HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).</p> <p>VLA: 1 mg/m³ 8 hours. VLA: 0.25 ppm 8 hours. Short term: 3 mg/m³ 15 minutes. Short term: 0.75 ppm 15 minutes.</p>



SECTION 8: Exposure controls/personal protection

 Butyl acetate	Government regulation SR c. 355/2006 (Slovakia, 9/2020). [] TWA: 241 mg/m ³ , (Butyl acetates) 8 hours. TWA: 50 ppm, (Butyl acetates) 8 hours. STEL: 723 mg/m ³ , (Butyl acetates) 15 minutes. STEL: 150 ppm, (Butyl acetates) 15 minutes.
2-Methoxy-1-methylethyl acetate	Government regulation SR c. 355/2006 (Slovakia, 9/2020). Absorbed through skin. TWA: 275 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. STEL: 550 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes.
Isobutyl acetate	Government regulation SR c. 355/2006 (Slovakia, 9/2020). [] TWA: 241 mg/m ³ , (Butyl acetates) 8 hours. TWA: 50 ppm, (Butyl acetates) 8 hours. STEL: 723 mg/m ³ , (Butyl acetates) 15 minutes. STEL: 150 ppm, (Butyl acetates) 15 minutes.
Methylisobutylketone	Government regulation SR c. 355/2006 (Slovakia, 9/2020). Absorbed through skin. TWA: 83 mg/m ³ 8 hours. TWA: 20 ppm 8 hours. STEL: 166 mg/m ³ 15 minutes. STEL: 40 ppm 15 minutes.
Maleic anhydride	Government regulation SR c. 355/2006 (Slovakia, 9/2020). Skin sensitiser. TWA: 0.41 mg/m ³ 8 hours. TWA: 0.1 ppm 8 hours.
 Butyl acetate	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. KTV: 723 mg/m ³ , 4 times per shift, 15 minutes. KTV: 150 ppm, 4 times per shift, 15 minutes.
2-Methoxy-1-methylethyl acetate	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). Absorbed through skin. TWA: 275 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. KTV: 550 mg/m ³ , 4 times per shift, 15 minutes. KTV: 100 ppm, 4 times per shift, 15 minutes.
Isobutyl acetate	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). TWA: 241 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. KTV: 723 mg/m ³ , 4 times per shift, 15 minutes. KTV: 150 ppm, 4 times per shift, 15 minutes.
Methylisobutylketone	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). Absorbed through skin. TWA: 83 mg/m ³ 8 hours. TWA: 20 ppm 8 hours. KTV: 208 mg/m ³ , 4 times per shift, 15 minutes. KTV: 50 ppm, 4 times per shift, 15 minutes.
Maleic anhydride	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). TWA: 0.41 mg/m ³ 8 hours. TWA: 0.1 ppm 8 hours. KTV: 0.41 mg/m ³ , 4 times per shift, 15 minutes. KTV: 0.1 ppm, 4 times per shift, 15 minutes.

SECTION 8: Exposure controls/personal protection

 n-Butyl acetate	National institute of occupational safety and health (Spain, 4/2021). TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 724 mg/m ³ 15 minutes.
2-Methoxy-1-methylethyl acetate	National institute of occupational safety and health (Spain, 4/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m ³ 15 minutes.
Isobutyl acetate	National institute of occupational safety and health (Spain, 4/2021). TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 724 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes.
Methylisobutylketone	National institute of occupational safety and health (Spain, 4/2021). TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 208 mg/m ³ 15 minutes.
Maleic anhydride	National institute of occupational safety and health (Spain, 4/2021). Skin sensitiser. Inhalation sensitiser. TWA: 0.1 ppm 8 hours. TWA: 0.4 mg/m ³ 8 hours.
 n-Butyl acetate	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [butyl acetate] TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes.
2-Methoxy-1-methylethyl acetate	Work environment authority Regulation 2018:1 (Sweden, 9/2021). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 275 mg/m ³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m ³ 15 minutes.
Isobutyl acetate	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [butyl acetate] TWA: 50 ppm 8 hours. TWA: 241 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m ³ 15 minutes.
2-Butoxyethanol	Work environment authority Regulation 2018:1 (Sweden, 9/2021). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 50 mg/m ³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 246 mg/m ³ 15 minutes.
Methylisobutylketone	Work environment authority Regulation 2018:1 (Sweden, 9/2021). TWA: 20 ppm 8 hours. TWA: 83 mg/m ³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 200 mg/m ³ 15 minutes.
propylidynetrimethanol	Work environment authority Regulation 2018:1 (Sweden, 9/2021). TWA: 5 mg/m ³ 8 hours.
Maleic anhydride	Work environment authority Regulation 2018:1 (Sweden, 9/2021). Skin sensitiser. TWA: 0.05 ppm 8 hours.



SECTION 8: Exposure controls/personal protection

 Butyl acetate	<p>TWA: 0.2 mg/m³ 8 hours. STEL: 0.1 ppm 15 minutes. STEL: 0.4 mg/m³ 15 minutes.</p> <p>SUVA (Switzerland, 1/2023). TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 720 mg/m³ 15 minutes.</p>
2-Methoxy-1-methylethyl acetate	<p>SUVA (Switzerland, 1/2023). TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 275 mg/m³ 15 minutes.</p>
Isobutyl acetate	<p>SUVA (Switzerland, 1/2023). TWA: 50 ppm 8 hours. TWA: 240 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 720 mg/m³ 15 minutes.</p>
2-Butoxyethanol	<p>SUVA (Switzerland, 1/2023). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 49 mg/m³ 8 hours. STEL: 20 ppm 15 minutes. STEL: 98 mg/m³ 15 minutes.</p>
Methylisobutylketone	<p>SUVA (Switzerland, 1/2023). Absorbed through skin. TWA: 20 ppm 8 hours. TWA: 82 mg/m³ 8 hours. STEL: 40 ppm 15 minutes. STEL: 164 mg/m³ 15 minutes.</p>
Maleic anhydride	<p>SUVA (Switzerland, 1/2023). Skin sensitiser. TWA: 0.1 ppm 8 hours. Form: vapour and aerosols TWA: 0.4 mg/m³ 8 hours. Form: vapour and aerosols STEL: 0.1 ppm 15 minutes. Form: vapour and aerosols STEL: 0.4 mg/m³ 15 minutes. Form: vapour and aerosols</p>
 Butyl acetate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 966 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m³ 8 hours. TWA: 150 ppm 8 hours.</p>
2-Methoxy-1-methylethyl acetate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 548 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 274 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.</p>
Isobutyl acetate	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 903 mg/m³ 15 minutes. STEL: 187 ppm 15 minutes. TWA: 724 mg/m³ 8 hours. TWA: 150 ppm 8 hours.</p>
2-Butoxyethanol	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m³ 15 minutes. TWA: 123 mg/m³ 8 hours.</p>
Xylene	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] Absorbed through skin. STEL: 441 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 220 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.</p>
orthophosphoric acid	<p>EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 2 mg/m³ 15 minutes. TWA: 1 mg/m³ 8 hours.</p>

SECTION 8: Exposure controls/personal protection

Methylisobutylketone	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 416 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
Ethylbenzene	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 552 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m ³ 8 hours.
Maleic anhydride	EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser. STEL: 3 mg/m ³ 15 minutes. TWA: 1 mg/m ³ 8 hours.

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
 Methylisobutylketone	Ministry of Economy, Labour and Entrepreneurship ILV/STEL (Croatia, 10/2018) BEI: 3.5 mg/l, 4-methylpentan-2-one [in urine]. Sampling time: not critical. BEI: 35 nmol/l, 4-methylpentan-2-one [in urine]. Sampling time: not critical.
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.	
 Methylisobutylketone	5/2020. (II. 6.) ITM Decree (Hungary, 12/2022) BEI: 35 µmol/l, methyl-iso-butyl-ketone [in urine]. Sampling time: at the end of the shift. BEI: 3.5 mg/l, methyl-iso-butyl-ketone [in urine]. Sampling time: at the end of the shift.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	

SECTION 8: Exposure controls/personal protection

2-Butoxyethanol	Portuguese Institute of Quality (Portugal, 11/2014) BEI: 200 mg/g creatinine, butoxyacetic acid (BAA) [in urine]. Sampling time: end of shift.
Methylisobutylketone	Portuguese Institute of Quality (Portugal, 11/2014) BEI: 1 mg/l, methylisobutylketone (MIBK) [in urine]. Sampling time: end of shift.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
2-Butoxyethanol	SUVA (Switzerland, 1/2023) 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.
Methylisobutylketone	SUVA (Switzerland, 1/2023) BEI: 0.7 mg/l, 4-methylpentan-2-one [in urine]. Sampling time: immediately after exposure or after working hours.
No exposure indices known.	

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

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-Butyl acetate	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	35.7 mg/m ³	General population	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12 mg/m ³	General population	Systemic
	DNEL	Long term	48 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

2-Methoxy-1-methylethyl acetate	DNEL	Inhalation Long term	33 mg/m ³	General population	Local
	DNEL	Inhalation Long term	33 mg/m ³	General population	Systemic
	DNEL	Inhalation Long term	33 mg/m ³	General population	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	275 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	320 mg/kg bw/day	General population	Systemic
Trizinc bis(orthophosphate)	DNEL	Short term Inhalation	550 mg/m ³	Workers	Local
	DNEL	Long term Dermal	796 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	0.83 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.5 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population	Systemic
Isobutyl acetate	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	10 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	10 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	35.7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	35.7 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	300 mg/m ³	General population	Local
	DNEL	Short term Inhalation	300 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	300 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	26.7 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	59 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	98 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	147 mg/m ³	General population	Local
	DNEL	Short term Inhalation	246 mg/m ³	Workers	Local
2-Butoxyethanol	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	26.7 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	59 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	98 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	147 mg/m ³	General population	Local
	DNEL	Short term Inhalation	246 mg/m ³	Workers	Local

SECTION 8: Exposure controls/personal protection

Methylisobutylketone	DNEL	Short term Inhalation	426 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1091 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	4.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	11.8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	14.7 mg/m ³	General population	Local
	DNEL	Long term Inhalation	14.7 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	83 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	83 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	155.2 mg/m ³	General population	Local
	DNEL	Short term Inhalation	155.2 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	208 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	208 mg/m ³	Workers	Systemic
	DNEL	Long term Oral	0.34 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.34 mg/kg bw/day	General population	Systemic
propylidynetrimethanol	DNEL	Long term Inhalation	0.58 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.94 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.3 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0.081 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	0.081 mg/m ³	Workers	Systemic
Maleic anhydride	DNEL	Short term Inhalation	0.2 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0.2 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	0.05 mg/m ³	General population	Systemic
	DNEL	Long term Oral	0.06 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.08 mg/m ³	General population	Local
	DNEL	Short term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

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

Individual protection measures

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

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

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): polyvinyl alcohol (PVA) thickness > 0.3 mm or 4H / Silver Shield® gloves.

> 8 hours (breakthrough time): Viton® thickness > 0.3 mm gloves

Wash hands before breaks and immediately after handling the product.

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
<input checked="" type="checkbox"/> Isobutyl acetate	117	242.6	OECD 103
n-Butyl acetate	126	258.8	OECD 103

Flammability	: Not available.
Lower and upper explosion limit	: Lower: 1.4% Upper: 7.6%
Flash point	: Closed cup: 25°C (77°F)
Auto-ignition temperature	:

Ingredient name	°C	°F	Method
<input checked="" type="checkbox"/> Methoxy-1-methylethyl acetate	333	631.4	DIN 51794
n-Butyl acetate	415	779	EU A.15

Decomposition temperature	: Not available.
pH	: <input checked="" type="checkbox"/> Not applicable.
Viscosity	: Not available.
Solubility(ies)	:
Not available.	

Solubility in water	: Not available.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	:

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> Isobutyl acetate	15.75134	2.1	DIN EN 13016-2			
n-Butyl acetate	11.25096	1.5	DIN EN 13016-2			

Relative density	: Not available.
Density	: 1.5 g/cm ³
Vapour density	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.
Particle characteristics	
Median particle size	: 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	Species	Dose	Exposure
Butyl acetate	LC50 Inhalation Vapour	Rat	0.74 mg/l	4 hours
	LD50 Dermal	Rabbit	14112 mg/kg	-
	LD50 Oral	Rat	10760 mg/kg	-
2-Methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Isobutyl acetate	LD50 Dermal	Rabbit	>17400 mg/kg	-
	LD50 Oral	Rat	13400 mg/kg	-
Methylisobutylketone	LD50 Oral	Rat	2080 mg/kg	-
propylidynetrimethanol	LD50 Oral	Rat	14000 mg/kg	-
Maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Route	ATE value
Inhalation (vapours)	314.91 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
n-Butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Isobutyl acetate	Eyes - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
2-Butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Methylisobutylketone	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500	-

SECTION 11: Toxicological information

Maleic anhydride	Eyes - Severe irritant	Rabbit	-	mg 1 %	-
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Conclusion/Summary : Based on available data, the classification criteria are not met.

Sensitisation

Conclusion/Summary : Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-Butyl acetate	Category 3	-	Narcotic effects
2-Methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
Isobutyl acetate	Category 3	-	Narcotic effects
Methylisobutylketone	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Maleic anhydride	Category 1	inhalation	respiratory system

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 : No known significant effects or critical hazards.

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

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Skin contact : No specific data.

Ingestion : No specific data.

SECTION 11: Toxicological information

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 : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours
n-Butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - <i>Artemia salina</i>	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
Trizinc bis(orthophosphate)	Acute EC50 0.32 mg/l	Algae - <i>Selenastrum capricornutum</i>	72 hours
	Acute EC50 0.96 mg/l	Crustaceans - <i>Ceriodaphnia dubia</i>	48 hours
2-Butoxyethanol	Acute EC50 >1000 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - <i>Crangon crangon</i>	48 hours
Methylisobutylketone	Acute LC50 1250000 µg/l Marine water	Fish - <i>Menidia beryllina</i>	96 hours
	Acute LC50 505000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Chronic NOEC 78 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - <i>Pimephales promelas</i> - Embryo	33 days
propylidynetrimethanol	Acute EC50 13000000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 14400000 µg/l Marine water	Fish - <i>Cyprinodon variegatus</i>	96 hours
Maleic anhydride	Acute LC50 230000 µg/l Fresh water	Fish - <i>Gambusia affinis</i> - Adult	96 hours

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : This product has not been tested for biodegradation.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
n-Butyl acetate	2.3	-	Low
2-Methoxy-1-methylethyl acetate	1.2	-	Low
Trizinc bis(orthophosphate)	-	60960	High
Isobutyl acetate	2.3	-	Low
2-Butoxyethanol	0.81	-	Low
Methylisobutylketone	1.9	-	Low
propylidynetrimethanol	-0.47	<1	Low
Maleic anhydride	-2.78	-	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

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 : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

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





European waste catalogue (EWC) : 080111*

Packaging

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

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

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Tunnel code (D/E)

ADN

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

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]
TEKNODUR COMBI 3440-05	≥90	3

Labelling

:

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air

: Not listed

SECTION 15: Regulatory information

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

Explosive precursors :  Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c E2

National regulations

Austria

VbF class : A II
Very dangerous flammable liquid.

**Limitation of the use of
organic solvents** : Permitted.

Czech Republic


Storage code : II

Denmark

**Product registration
number** : 4356726

Danish fire class : II-1

Executive Order No. 1795/2015

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

MAL-code : 2-3

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

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

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

SECTION 15: Regulatory information

MAL-code: 2-3

Application: 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.

- Gas filter mask and coveralls must be worn.

When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Gas filter mask must be worn.

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, coveralls and eye protection must be worn.

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

- Air-supplied half-mask, apron, arm protectors and eye protection 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 half mask and eye protection must be worn.

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

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

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

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

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

*See Regulations.

Restrictions on use	:	Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.	
List of undesirable substances	:	Not listed	
Carcinogenic waste	:	Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.	
<u>Finland</u>			
<u>France</u>			
Social Security Code, Articles L 461-1 to L 461-7	:	<input checked="" type="checkbox"/> Butyl acetate	RG 84
		2-Methoxy-1-methylethyl acetate	RG 84
		Isobutyl acetate	RG 84
		2-Butoxyethanol	RG 84
		Methylisobutylketone	RG 84
		Maleic anhydride	RG 66
Reinforced medical surveillance	:	Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable	
<u>Germany</u>			


SECTION 15: Regulatory information

Storage class (TRGS 510) : 3

Hazardous incident ordinance

 This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
 P5c E2	1.2.5.3 1.3.2

Hazard class for water : 2

Technical instruction on air quality control :  A-Luft Number 5.2.5: 37.1%
TA-Luft Class I - Number 5.2.5: 0.1%

Italy

D.Lgs. 152/06 :  Not determined.

Netherlands

Water Discharge Policy (ABM) : A(2) Toxic for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

Norway

Sweden

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

Switzerland

VOC content :  VOC (w/w): 24.2%

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]

SECTION 16: Other information

Classification	Justification
Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H336 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
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 Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Carc. 2	CARCINOGENICITY - 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
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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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.

