SAFETY DATA SHEET

TEKNOCOAT PRIMER 1603-11

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

1.1 Product identifier

Product name : TEKNOCOAT PRIMER 1603-11

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

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

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

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. 2, H225
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.
H336 - May cause drowsiness or dizziness.

Precautionary statements

Prevention : 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.

Hazardous ingredients : Contains: n-Butyl acetate

SECTION 2: Hazards identification

Supplemental label elements : Contains Formaldehyde. 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
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]
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≥10 - ≤25	Carc. 2, H351 (inhalation)	-	[1] [*]
Urea-formaldehyde-polymer	CAS: 68002-18-6	≤5	Aquatic Chronic 4, H413	-	[1]
Ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≤5	Flam. Liq. 2, H225 Eye Irrit. 2, H319	-	[1]
2-Methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≤3	Flam. Liq. 3, H226	-	[2]
Urea, polymer with formaldehyde, butylated	CAS: 68002-19-7	≤3	Aquatic Chronic 4, H413	-	[1]
Formaldehyde	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (gases)] = 700 ppm Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25% Eye Dam. 1, H318:	[1] [2]

SECTION 3: Composition/information on ingredients

			See Section 16 for the full text of the H statements declared above.	C ≥ 25% Eye Irrit. 2, H319: 5% ≤ C < 25% Skin Sens. 1, H317: C ≥ 0.2% STOT SE 3, H335: C ≥ 5%	

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 if irritation occurs.

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

Skin contact : 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.

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 : No specific data.

SECTION 4: First aid measures

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

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : 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
nitrogen oxides
halogenated compounds
metal oxide/oxides

5.3 Advice for firefighters

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

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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

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

SECTION 6: Accidental release measures

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

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

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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	5000 tonne	50000 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). [Butyl acetate (all isomers except tert-butyl acetate)]** CEIL: 480 mg/m³ 15 minutes. CEIL: 100 ppm 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Ethanol	**Regulation on Limit Values - MAC (Austria, 4/2021).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. CEIL: 2000 ppm, 3 times per shift, 60 minutes. CEIL: 3800 mg/m³, 3 times per shift, 60 minutes.
2-Methoxy-1-methylethyl acetate	**Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours. CEIL: 100 ppm, 8 times per shift, 5 minutes. CEIL: 550 mg/m³, 8 times per shift, 5 minutes.
Formaldehyde	**Regulation on Limit Values - MAC (Austria, 4/2021). Skin sensitiser.** TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours. CEIL: 0.6 ppm 15 minutes. CEIL: 0.74 mg/m³ 15 minutes.
n-Butyl acetate	**Limit values (Belgium, 5/2021). [butyl acetate, all isomers]** STEL: 712 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 238 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Ethanol	**Limit values (Belgium, 5/2021).** TWA: 1000 ppm 8 hours. TWA: 1907 mg/m³ 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.
Formaldehyde	**Limit values (Belgium, 5/2021).** Limit value - M: 0.3 ppm Limit value - M: 0.38 mg/m³
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.
Ethanol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021).** Limit value 8 hours: 1000 mg/m³ 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.
Formaldehyde	**Ministry of Labour and Social Policy and the Ministry of**

	Health - Ordinance No 10/2003. (Bulgaria, 6/2021). Skin sensitiser. Limit value 15 min: 0.5 ppm 15 minutes. Form: For the healthcare, funeral and embalming sectors Limit value 8 hours: 0.62 mg/m³ 8 hours. Form: For the healthcare, funeral and embalming sectors Limit value 15 min: 0.74 mg/m³ 15 minutes. Limit value 8 hours: 0.37 mg/m³ 8 hours. Limit value 15 min: 0.6 ppm 15 minutes. Limit value 8 hours: 0.3 ppm 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.
Ethanol	**Ministry of Economy, Labour and Entrepreneurship ELV/ STELV (Croatia, 1/2021).** ELV: 1900 mg/m³ 8 hours. ELV: 1000 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. ELV: 50 ppm 8 hours.
Formaldehyde	**Ministry of Economy, Labour and Entrepreneurship ELV/ STELV (Croatia, 1/2021). Skin sensitiser.** ELV: 0.62 mg/m³ 8 hours. Form: health and funeral sector and embalming sector ELV: 0.5 ppm 8 hours. Form: health and funeral sector and embalming sector STELV: 0.74 mg/m³ 15 minutes. STELV: 0.6 ppm 15 minutes.
n-Butyl acetate	**Department of labour inspection (Cyprus, 7/2021).** STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours.
2-Methoxy-1-methylethyl acetate	**Department of labour inspection (Cyprus, 7/2021). Absorbed through skin.** STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 275 mg/m³ 8 hours.
Formaldehyde	**EU OEL (Europe, 10/2019). Skin sensitiser.** STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.62 ppm 8 hours. TWA: 0.5 mg/m³ 8 hours.
n-Butyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 10/2022).** TWA: 241 mg/m³ 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 149.661 ppm 15 minutes. TWA: 49.887 ppm 8 hours.
Ethanol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 10/2022).** TWA: 1000 mg/m³ 8 hours. TWA: 522 ppm 8 hours. STEL: 3000 mg/m³ 15 minutes. STEL: 1566 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 10/2022). Absorbed through skin.**

	TWA: 270 mg/m³ 8 hours. TWA: 49.14 ppm 8 hours. STEL: 550 mg/m³ 15 minutes. STEL: 100.1 ppm 15 minutes.
Formaldehyde	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 10/2022). [formaldehyd] Skin sensitiser.** TWA: 0.5 mg/m³ 8 hours. Form: for health services, funeral services and embalming services STEL: 0.74 mg/m³ 15 minutes. Form: for health services, funeral services and embalming services STEL: 0.59274 ppm 15 minutes. Form: for health services, funeral services and embalming services TWA: 0.4005 ppm 8 hours. Form: for health services, funeral services and embalming services TWA: 0.37 mg/m³ 8 hours. Form: outside the field of health services, funeral services and embalming services TWA: 0.29637 ppm 8 hours. Form: outside the field of health services, funeral services and embalming services STEL: 0.74 mg/m³ 15 minutes. Form: outside the field of health services, funeral services and embalming services STEL: 0.59274 ppm 15 minutes. Form: outside the field of health services, funeral services and embalming services
n-Butyl acetate	**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.
Ethanol	**Working Environment Authority (Denmark, 6/2022).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. STEL: 3800 mg/m³ 15 minutes. STEL: 2000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Working Environment Authority (Denmark, 6/2022). Skin sensitiser. Carcinogen.** TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. STEL: 0.74 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes.
n-Butyl acetate	**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.
Ethanol	**Occupational exposure limits, Regulation No. 293 (Estonia, 12/2022).** TWA: 1000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. STEL: 1900 mg/m³ 15 minutes. STEL: 1000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Occupational exposure limits, Regulation No. 293 (Estonia,**

SECTION 8: Exposure controls/personal protection

	12/2022). Skin sensitiser. TWA: 0.5 ppm 8 hours. Form: In the healthcare, funeral and embalming sector TWA: 0.62 mg/m³ 8 hours. Form: In the healthcare, funeral and embalming sector TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. STEL: 0.6 ppm 5 minutes. STEL: 0.74 mg/m³ 5 minutes.
n-Butyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**EU OEL (Europe, 10/2019). Skin sensitiser.** STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.62 ppm 8 hours. TWA: 0.5 mg/m³ 8 hours.
n-Butyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021).** TWA: 150 ppm 8 hours. TWA: 720 mg/m³ 8 hours. STEL: 200 ppm 15 minutes. STEL: 960 mg/m³ 15 minutes.
Ethanol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. STEL: 1300 ppm 15 minutes. STEL: 2500 mg/m³ 15 minutes.
2-Methoxy-1-methylethyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021). Absorbed through skin.** TWA: 50 ppm 8 hours. TWA: 270 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.
Formaldehyde	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021). Skin sensitiser.** TWA: 0.5 ppm 8 hours. Form: Healthcare and burials in the embalming sector TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours. STEL: 0.74 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes.
n-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/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes.
Ethanol	**Ministry of Labor (France, 10/2022). Notes: Permissible limit values (circulars)** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. STEL: 5000 ppm 15 minutes. STEL: 9500 mg/m³ 15 minutes.

SECTION 8: Exposure controls/personal protection

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/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Formaldehyde	**Ministry of Labor (France, 10/2022). Skin sensitiser. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)** TWA: 0.3 ppm 8 hours. STEL: 0.6 ppm 15 minutes. TWA: 0.5 ppm 8 hours. Form: the healthcare, funeral directors and embalming sectors TWA: 0.62 mg/m³ 8 hours. Form: the healthcare, funeral directors and embalming sectors STEL: 0.74 mg/m³ 15 minutes. TWA: 0.37 mg/m³ 8 hours.
n-Butyl acetate	**DFG MAC-values list (Germany, 7/2022).** 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, 6/2022).** TWA: 300 mg/m³ 8 hours. TWA: 62 ppm 8 hours. PEAK: 600 mg/m³ 15 minutes. PEAK: 124 ppm 15 minutes.
Ethanol	**TRGS 900 OEL (Germany, 6/2022).** TWA: 380 mg/m³ 8 hours. PEAK: 1520 mg/m³ 15 minutes. TWA: 200 ppm 8 hours. PEAK: 800 ppm 15 minutes. **DFG MAC-values list (Germany, 7/2022).** TWA: 200 ppm 8 hours. PEAK: 800 ppm, 4 times per shift, 15 minutes. TWA: 380 mg/m³ 8 hours. PEAK: 1520 mg/m³, 4 times per shift, 15 minutes.
2-Methoxy-1-methylethyl acetate	**TRGS 900 OEL (Germany, 6/2022).** 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, 7/2022).** 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.
Formaldehyde	**DFG MAC-values list (Germany, 7/2022). Skin sensitiser.** TWA: 0.3 ppm 8 hours. CEIL: 1 ml/m³ TWA: 0.37 mg/m³ 8 hours. CEIL: 1.2 mg/m³ PEAK: 0.74 mg/m³, 4 times per shift, 15 minutes. PEAK: 0.6 ppm, 4 times per shift, 15 minutes. **TRGS 900 OEL (Germany, 6/2022). Skin sensitiser.** TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. PEAK: 0.6 ppm 15 minutes. PEAK: 0.74 mg/m³ 15 minutes.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**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.
Ethanol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). Skin sensitiser.** TWA: 0.62 ppm 8 hours. Form: sectors of health care, funerals and embalming STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.5 mg/m³ 8 hours. Form: sectors of health care, funerals and embalming
n-Butyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Skin sensitiser. Inhalation sensitiser.** TWA: 241 mg/m³ 8 hours. PEAK: 723 mg/m³ 15 minutes. PEAK: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Ethanol	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2022).** TWA: 1900 mg/m³ 8 hours. PEAK: 3800 mg/m³ 15 minutes. PEAK: 2000 ppm 15 minutes. TWA: 1000 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2022).** TWA: 275 mg/m³ 8 hours. PEAK: 550 mg/m³ 15 minutes. PEAK: 100 ppm 15 minutes. TWA: 50 ppm 8 hours.
Formaldehyde	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2022). Absorbed through skin. Skin sensitiser. Inhalation sensitiser.** PEAK: 0.6 mg/m³ 15 minutes. Form: in the healthcare sector, funerals and embalming TWA: 0.6 mg/m³ 8 hours. Form: in the healthcare sector, funerals and embalming PEAK: 0.5 ppm 15 minutes. Form: in the healthcare sector, funerals and embalming TWA: 0.5 ppm 8 hours. Form: in the healthcare sector, funerals and embalming TWA: 0.37 mg/m³ 8 hours. PEAK: 0.74 mg/m³ 15 minutes. PEAK: 0.6 ppm 15 minutes. TWA: 0.3 ppm 8 hours.
n-Butyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). [butyl acetate, all isomers]** TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.
Ethanol	**Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021).** TWA: 1900 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021).**

	Absorbed through skin. STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Formaldehyde	**Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). Absorbed through skin.** STEL: 0.74 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes. TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours.
n-Butyl acetate	**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.
Ethanol	**NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV-15min: 1000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**NAOSH (Ireland, 5/2021). Sensitization potential. Notes: EU derived Occupational Exposure Limit Values** OELV-8hr: 0.3 ppm 8 hours. OELV-15min: 0.6 ppm 15 minutes. OELV-15min: 0.738 mg/m³ 15 minutes. OELV-8hr: 0.37 mg/m³ 8 hours.
n-Butyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**EU OEL (Europe, 10/2019). Skin sensitiser.** STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.62 ppm 8 hours. TWA: 0.5 mg/m³ 8 hours.
n-Butyl acetate	**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.
Ethanol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021).** TWA: 1000 mg/m³ 8 hours.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	

	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 2/2021). Skin sensitiser. STEL: 0.5 ppm 15 minutes. Form: For the healthcare, funeral and embalming sectors TWA: 0.62 mg/m³ 8 hours. Form: For the healthcare, funeral and embalming sectors TWA: 0.37 mg/m³ 8 hours. STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.3 ppm 8 hours.
n-Butyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 7/2022).** TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes.
Ethanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 7/2022).** TWA: 1000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. STEL: 1900 mg/m³ 15 minutes. STEL: 1000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 7/2022). 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.
Formaldehyde	**Lithuanian Hygiene Standard HN 23 (Lithuania, 7/2022). Skin sensitiser. Inhalation sensitiser.** TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours. STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes.
n-Butyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Grand-Duchy Regulation 2016. Carcinogens or mutagens agents. Annex III (Luxembourg, 3/2021). Skin sensitiser.** STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours.
n-Butyl acetate	**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.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Ministry of Health (Malta, 1/2021). Skin sensitiser.** TWA: 0.5 ppm 8 hours.

	TWA: 0.62 mg/m³ 8 hours.
n-Butyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2022).** OEL, 8-h TWA: 241 mg/m³ 8 hours. STEL,15-min: 723 mg/m³ 15 minutes. STEL,15-min: 150 ppm 15 minutes. OEL, 8-h TWA: 50 ppm 8 hours.
Ethanol	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2022). Absorbed through skin.** OEL, 8-h TWA: 260 mg/m³ 8 hours. STEL,15-min: 1900 mg/m³ 15 minutes. STEL,15-min: 1000 ppm 15 minutes. OEL, 8-h TWA: 137 ppm 8 hours.
2-Methoxy-1-methylethyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2022).** OEL, 8-h TWA: 550 mg/m³ 8 hours. OEL, 8-h TWA: 100 ppm 8 hours.
Formaldehyde	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2022). Skin sensitiser.** OEL, 8-h TWA: 0.15 mg/m³ 8 hours. STEL,15-min: 0.5 mg/m³ 15 minutes. STEL,15-min: 0.41 ppm 15 minutes. OEL, 8-h TWA: 0.12 ppm 8 hours.
n-Butyl acetate	**FOR-2011-12-06-1358 (Norway, 12/2022).** STEL: 723 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. **FOR-2011-12-06-1358 (Norway, 12/2022). Notes: indicative limit value** TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Ethanol	**FOR-2011-12-06-1358 (Norway, 12/2022).** TWA: 500 ppm 8 hours. TWA: 950 mg/m³ 8 hours.
2-Methoxy-1-methylethyl acetate	**FOR-2011-12-06-1358 (Norway, 12/2022). Absorbed through skin. Notes: indicative limit value** TWA: 50 ppm 8 hours. TWA: 270 mg/m³ 8 hours.
Formaldehyde	**FOR-2011-12-06-1358 (Norway, 12/2022). Skin sensitiser. Carcinogen. Notes: binding limit value** TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours. **FOR-2011-12-06-1358 (Norway, 12/2022). Skin sensitiser. Carcinogen.** CEIL: 1 ppm CEIL: 1.2 mg/m³ STEL: 0.74 mg/m³ 15 minutes. STEL: 0.6 ppm 15 minutes.
n-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/m³ 8 hours. STEL: 720 mg/m³ 15 minutes.
Ethanol	**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: 1900 mg/m³ 8 hours.
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/m³ 8 hours. STEL: 520 mg/m³ 15 minutes.
Formaldehyde	**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: 0.37 mg/m³ 8 hours. STEL: 0.74 mg/m³ 15 minutes.
n-Butyl acetate	**Portuguese Institute of Quality (Portugal, 11/2014).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Ethanol	**Portuguese Institute of Quality (Portugal, 11/2014).** STEL: 1000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**Portuguese Institute of Quality (Portugal, 11/2014). Skin sensitiser.** CEIL: 0.3 ppm
n-Butyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).** VLA: 241 mg/m³ 8 hours. VLA: 50 ppm 8 hours. Short term: 723 mg/m³ 15 minutes. Short term: 150 ppm 15 minutes.
Ethanol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021).** VLA: 1900 mg/m³ 8 hours. VLA: 1000 ppm 8 hours. Short term: 9500 mg/m³ 15 minutes. Short term: 5000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). Absorbed through skin.** VLA: 275 mg/m³ 8 hours. VLA: 50 ppm 8 hours. Short term: 550 mg/m³ 15 minutes. Short term: 100 ppm 15 minutes.
Formaldehyde	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2021). Skin sensitiser.** Short term: 0.5 mg/m³ 15 minutes. Form: for the healthcare, funeral and embalming services sector VLA: 0.62 ppm 8 hours. Form: for the healthcare, funeral and embalming services sector VLA: 0.37 mg/m³ 8 hours. VLA: 0.3 ppm 8 hours. Short term: 0.74 mg/m³ 15 minutes. Short term: 0.6 ppm 15 minutes.
n-Butyl acetate	**Government regulation SR c. 355/2006 (Slovakia, 9/2020). [Butyl acetates]** TWA: 241 mg/m³, (Butyl acetates) 8 hours. TWA: 50 ppm, (Butyl acetates) 8 hours. STEL: 723 mg/m³, (Butyl acetates) 15 minutes. STEL: 150 ppm, (Butyl acetates) 15 minutes.
Ethanol	**Government regulation SR c. 355/2006 (Slovakia, 9/2020).** TWA: 960 mg/m³ 8 hours. TWA: 500 ppm 8 hours. STEL: 1920 mg/m³ 15 minutes.

SECTION 8: Exposure controls/personal protection

	STEL: 1000 ppm 15 minutes.
2-Methoxy-1-methylethyl acetate	**Government regulation SR c. 355/2006 (Slovakia, 9/2020). Absorbed through skin.** TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours. STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes.
Formaldehyde	**Government regulation SR c. 356/2006 (Slovakia, 9/2020). Skin sensitiser.** Technical guidance value: 0.37 mg/m³ 8 hours. Technical guidance value: 0.3 ppm 8 hours.
n-Butyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021).** TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours. KTV: 723 mg/m³, 4 times per shift, 15 minutes. KTV: 150 ppm, 4 times per shift, 15 minutes.
Ethanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021).** TWA: 960 mg/m³ 8 hours. TWA: 500 ppm 8 hours. KTV: 1920 mg/m³, 4 times per shift, 15 minutes. KTV: 1000 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/m³ 8 hours. TWA: 50 ppm 8 hours. KTV: 550 mg/m³, 4 times per shift, 15 minutes. KTV: 100 ppm, 4 times per shift, 15 minutes.
Formaldehyde	**Regulation on the protection of workers from the risks related to exposure to carcinogens or mutagens (Slovenia, 7/2022). Absorbed through skin. Skin sensitiser.** Peak: 0.6 ml/m3, 4 times per shift, 15 minutes. Peak: 0.74 mg/m³, 4 times per shift, 15 minutes. TWA: 0.3 ml/m3 8 hours. TWA: 0.37 mg/m³ 8 hours.
n-Butyl acetate	**National institute of occupational safety and health (Spain, 4/2022).** TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes.
Ethanol	**National institute of occupational safety and health (Spain, 4/2022).** STEL: 1000 ppm 15 minutes. STEL: 1910 mg/m³ 15 minutes.
2-Methoxy-1-methylethyl acetate	**National institute of occupational safety and health (Spain, 4/2022). 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.
Formaldehyde	**National institute of occupational safety and health (Spain, 4/2022). Skin sensitiser.** STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.37 mg/m³ 8 hours. TWA: 0.3 ppm 8 hours.

SECTION 8: Exposure controls/personal protection

n-Butyl acetate	**Work environment authority Regulation 2018:1 (Sweden, 9/2021). [butyl acetate]** TWA: 50 ppm 8 hours. TWA: 241 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes.
Ethanol	**Work environment authority Regulation 2018:1 (Sweden, 9/2021).** TWA: 500 ppm 8 hours. TWA: 1000 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 1900 mg/m³ 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/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 550 mg/m³ 15 minutes.
Formaldehyde	**Work environment authority Regulation 2018:1 (Sweden, 9/2021). Absorbed through skin. Skin sensitiser.** TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours. STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes.
n-Butyl acetate	**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.
Ethanol	**SUVA (Switzerland, 1/2023).** TWA: 500 ppm 8 hours. TWA: 960 mg/m³ 8 hours. STEL: 1000 ppm 15 minutes. STEL: 1920 mg/m³ 15 minutes.
2-Methoxy-1-methylethyl acetate	**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.
Formaldehyde	**SUVA (Switzerland, 1/2023). Skin sensitiser.** TWA: 0.3 ppm 8 hours. TWA: 0.37 mg/m³ 8 hours. STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes.
n-Butyl acetate	**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.
Ethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 1000 ppm 8 hours. TWA: 1920 mg/m³ 8 hours.
2-Methoxy-1-methylethyl acetate	**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.
Butanone	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 899 mg/m³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 600 mg/m³ 8 hours. TWA: 200 ppm 8 hours.

Formaldehyde	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 2.5 mg/m³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2 ppm 8 hours. TWA: 2.5 mg/m³ 8 hours.
Ethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 441 mg/m³ 8 hours.
Ethyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. STEL: 1468 mg/m³ 15 minutes. TWA: 734 mg/m³ 8 hours.

Biological exposure indices

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

Butanone	**EH40/2005 BMGVs (United Kingdom (UK), 8/2018)** BGV: 70 µmol/l, butan-2-one [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	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/m³	General population	Local
	DNEL	Short term Inhalation	300 mg/m³	General population	Local
	DNEL	Short term Inhalation	300 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	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/m³	General population	Systemic
	DNEL	Long term Inhalation	48 mg/m³	Workers	Systemic
Ethanol	DNEL	Long term Oral	87 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	114 mg/m³	General population	Systemic
	DNEL	Long term Dermal	206 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	343 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	950 mg/m³	General population	Local
	DNEL	Long term Inhalation	950 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	1900 mg/m³	Workers	Local
2-Methoxy-1-methylethyl acetate	DNEL	Long term Inhalation	33 mg/m³	General population	Local
	DNEL	Long term Inhalation	33 mg/m³	General population	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	275 mg/m³	Workers	Systemic

	DNEL	Long term Dermal	320 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	550 mg/m³	Workers	Local
	DNEL	Long term Dermal	796 mg/kg bw/day	Workers	Systemic
Formaldehyde	DNEL	Long term Inhalation	0.375 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.75 mg/m³	Workers	Local
	DNEL	Long term Dermal	12 µg/cm²	General population	Local
	DNEL	Long term Dermal	37 µg/cm²	Workers	Local
	DNEL	Long term Inhalation	0.1 mg/m³	General population	Local
	DNEL	Long term Inhalation	3.2 mg/m³	General population	Systemic
	DNEL	Long term Oral	4.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	9 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

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

Individual protection measures

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

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

Skin protection

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

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

SECTION 8: Exposure controls/personal protection

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
Ethanol	78.29	172.9	
n-Butyl acetate	126	258.8	OECD 103

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.4%
Upper: 19%

Flash point : Closed cup: 21°C (69.8°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
2-Methoxy-1-methylethyl acetate	333	631.4	DIN 51794
n-Butyl acetate	415	779	EU A.15

Decomposition temperature : Not available.

pH : Not applicable.

Viscosity : Not available.

Solubility(ies) :

Not available.

Solubility in water : Not available.

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

Vapour pressure :

	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Ethanol	42.94865	5.7				
n-Butyl acetate	11.25096	1.5	DIN EN 13016-2			

SECTION 9: Physical and chemical properties

Relative density : Not available.

Density : 1.3 g/cm³

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
n-Butyl acetate	LC50 Inhalation Vapour	Rat	0.74 mg/l	4 hours
	LD50 Dermal	Rabbit	14112 mg/kg	-
	LD50 Oral	Rat	10760 mg/kg	-
Urea-formaldehyde-polymer	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
Ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m³	4 hours
	LD50 Oral	Rat	7 g/kg	-
2-Methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
Formaldehyde	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-

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

Acute toxicity estimates

Route	ATE value
Not available.	

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-Butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
Urea-formaldehyde-polymer	Eyes - Severe irritant	Rabbit	-	24 hours 100 uL	-
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Formaldehyde	Eyes - Mild irritant	Human	-	6 minutes 1 ppm	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Mild irritant	Human	-	72 hours 150 ug l	-
	Skin - Mild irritant	Rabbit	-	540 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Human	-	0.01 %	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

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
Formaldehyde	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

SECTION 11: Toxicological information

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

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 : No specific data.

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.

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

SECTION 12: Ecological information

Product/ingredient name	Result	Species	Exposure
n-Butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - *Artemia salina*	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - *Pimephales promelas*	96 hours
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - *Ceriodaphnia dubia* - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - *Daphnia pulex* - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - *Fundulus heteroclitus*	96 hours
Ethanol	Acute EC50 17.921 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - *Artemia franciscana* - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - *Oncorhynchus mykiss*	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - *Daphnia magna* - Neonate	21 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish - *Gambusia holbrooki* - Larvae	12 weeks
Formaldehyde	Acute EC50 3.48 mg/l Fresh water	Algae - *Desmodesmus subspicatus*	72 hours
	Acute EC50 0.788 mg/l Marine water	Algae - *Ulva pertusa*	96 hours
	Acute EC50 12.98 mg/l Fresh water	Crustaceans - *Ceriodaphnia dubia* - Neonate	48 hours
	Acute EC50 5800 µg/l Fresh water	Daphnia - *Daphnia pulex* - Neonate	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - *Oncorhynchus mykiss*	96 hours
	Chronic NOEC 0.005 mg/l Marine water	Algae - *Isochrysis galbana* - Exponential growth phase	96 hours
	Chronic NOEC 953.9 ppm Fresh water	Fish - *Oncorhynchus tshawytscha* - Egg	43 days

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

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-Butyl acetate	2.3	-	Low
Ethanol	-0.35	-	Low
2-Methoxy-1-methylethyl acetate	1.2	-	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	UN1993	UN1993	UN1993	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (n-butyl acetate, 2-methoxy-1-methylethyl acetate)	FLAMMABLE LIQUID, N.O.S. (n-butyl acetate, ethanol)	FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl acetate)	FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl acetate)
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

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

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

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

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

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Product/ingredient name	%	Designation [Usage]
TEKNOCOAT PRIMER 1603-11 Formaldehyde	≥90 <0.1	3 72

Labelling :

Other EU regulations

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

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

Explosive precursors : Not applicable.

Ozone depleting substances (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

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

Danish fire class : I-1

Executive Order No. 1795/2015

Ingredient name	Annex I Section A	Annex I Section B
titanium dioxide Propan-2-ol	Listed Listed	- -

MAL-code : 2-1

SECTION 15: Regulatory information

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: 2-1
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. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Air-supplied half mask must be worn.

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

- Air-supplied half mask, 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. 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.

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 half mask, eye protection, 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

SECTION 15: Regulatory information

Social Security Code, Articles L 461-1 to L 461-7 : n-Butyl acetate — RG 84
Ethanol — RG 84
2-Methoxy-1-methylethyl acetate — RG 84
Formaldehyde — RG 43, RG 43bis, RG 84

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 5.2.5: 32.4%

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

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

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

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

Norway

Sweden

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

Switzerland

VOC content : VOC (w/w): 31.6%

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

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

Classification	Justification
Flam. Liq. 2, H225 STOT SE 3, H336	On basis of test data Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Carc. 1B	CARCINOGENICITY - Category 1B
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
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 26/01/2024

Date of previous issue : No previous validation

Version : 1

Notice to reader

SECTION 16: Other information

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.