SAFETY DATA SHEET

HOLZSTAUBBINDEMITTEL 0340-00

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

1.1 Product identifier

Product name : HOLZSTAUBBINDEMITTEL 0340-00

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
Eye Irrit. 2, H319

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.
H319 - Causes serious eye irritation.

Precautionary statements

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

Response : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

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

SECTION 2: Hazards identification

Supplemental label elements :

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

2.3 Other hazards

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

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥50 - ≤75	Flam. Liq. 2, H225 Eye Irrit. 2, H319	-	[1]
Butanone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≤10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≤5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	EUH066: C ≥ 25%	[1] [2]
Dipropyleneglycolmethylether	REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8	≤5	Not classified.	-	[2]
ethyl (S) -2-hydroxypropionate	EC: 211-694-1 CAS: 687-47-8 Index: 607-129-00-7	<3	Flam. Liq. 3, H226 Eye Dam. 1, H318 STOT SE 3, H335 **See Section 16 for the full text of the H statements declared above.**	-	[1]

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

Type

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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 adverse health effects persist or are severe. 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 adverse health effects persist or are severe. 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. 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 : No specific data.

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

SECTION 5: Firefighting measures

5.3 Advice for firefighters

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

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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

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

6.3 Methods and material for containment and cleaning up

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

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

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

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.

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. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

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

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Ethanol	**Regulation on Limit Values - MAC (Austria, 4/2021)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. CEIL 60 minutes: 2000 ppm 3 times per shift. CEIL 60 minutes: 3800 mg/m³ 3 times per shift.
Butanone	**Regulation on Limit Values - MAC (Austria, 4/2021)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 295 mg/m³. PEAK 30 minutes: 200 ppm 4 times per shift. PEAK 30 minutes: 590 mg/m³ 4 times per shift.
acetone	**Regulation on Limit Values - MAC (Austria, 4/2021)** TWA 8 hours: 500 ppm. TWA 8 hours: 1200 mg/m³. PEAK 15 minutes: 2000 ppm 4 times per shift. PEAK 15 minutes: 4800 mg/m³ 4 times per shift.
Dipropyleneglycolmethylether	**Regulation on Limit Values - MAC (Austria, 4/2021) [Dipropylenglykolmonomethylether (Isomerengemisch)]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 307 mg/m³. CEIL 5 minutes: 100 ppm 8 times per shift. CEIL 5 minutes: 614 mg/m³ 8 times per shift.

SECTION 8: Exposure controls/personal protection

Ethanol	**Limit values (Belgium, 12/2023)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1907 mg/m³.
Butanone	**Limit values (Belgium, 12/2023)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**Limit values (Belgium, 12/2023)** TWA 8 hours: 246 ppm. TWA 8 hours: 594 mg/m³. STEL 15 minutes: 492 ppm. STEL 15 minutes: 1187 mg/m³.
Dipropyleneglycolmethylether	**Limit values (Belgium, 12/2023)** **[Dipropyleenglycolmonomethylether]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 1000 mg/m³.
Butanone	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 590 mg/m³. Limit value 15 minutes: 885 mg/m³.
acetone	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 600 mg/m³. Limit value 15 minutes: 1400 mg/m³.
Dipropyleneglycolmethylether	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) [2-(Methoxymethyletoxy)propanol]** Absorbed through skin. Limit value 8 hours: 308 mg/m³. Limit value 8 hours: 50 ppm.
Ethanol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** ELV 8 hours: 1900 mg/m³. ELV 8 hours: 1000 ppm.
Butanone	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 900 mg/m³. STELV 15 minutes: 300 ppm. ELV 8 hours: 600 mg/m³. ELV 8 hours: 200 ppm.
acetone	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** ELV 8 hours: 1210 mg/m³. ELV 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) [(2-metoksimetiletoksi)-propanol]** Absorbed through skin. ELV 8 hours: 308 mg/m³. ELV 8 hours: 50 ppm.

SECTION 8: Exposure controls/personal protection

Butanone	**Department of labour inspection (Cyprus, 7/2021)** STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³. TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³.
acetone	**Department of labour inspection (Cyprus, 7/2021)** Absorbed through skin. TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**Department of labour inspection (Cyprus, 7/2021)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 1000 mg/m³. TWA 8 hours: 522 ppm. STEL 15 minutes: 3000 mg/m³. STEL 15 minutes: 1566 ppm.
Butanone	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm.
acetone	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 800 mg/m³. STEL 15 minutes: 1500 mg/m³. STEL 15 minutes: 621.4 ppm. TWA 8 hours: 331.4 ppm.
Dipropyleneglycolmethylether	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) [(2-methoxymethylethoxy)propanol]** Absorbed through skin. TWA 8 hours: 270 mg/m³. TWA 8 hours: 43.8 ppm. STEL 15 minutes: 550 mg/m³. STEL 15 minutes: 89.3 ppm.
Ethanol	**Working Environment Authority (Denmark, 3/2024)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. STEL 15 minutes: 3800 mg/m³. STEL 15 minutes: 2000 ppm.
Butanone	**Working Environment Authority (Denmark, 3/2024)** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 145 mg/m³. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm.
acetone	**Working Environment Authority (Denmark, 3/2024)** TWA 8 hours: 250 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 1200 mg/m³. STEL 15 minutes: 500 ppm.
Dipropyleneglycolmethylether	**Working Environment Authority (Denmark, 3/2024) [dipropylenglycolmethylether]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 309 mg/m³. STEL 15 minutes: 618 mg/m³. STEL 15 minutes: 100 ppm.

SECTION 8: Exposure controls/personal protection

Ethanol	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** TWA 8 hours: 1000 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm.
Butanone	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm.
acetone	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) [dipropüleenglükooli monometüüleeter]** Absorbed through skin. TWA 8 hours: 308 mg/m³. TWA 8 hours: 50 ppm.
Butanone	**EU OEL (Europe, 1/2022)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**EU OEL (Europe, 1/2022)** TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**EU OEL (Europe, 1/2022) [(2-Methoxymethylethoxy)-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³. STEL 15 minutes: 1300 ppm. STEL 15 minutes: 2500 mg/m³.
Butanone	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** Absorbed through skin. STEL 15 minutes: 100 ppm. STEL 15 minutes: 300 mg/m³. TWA 8 hours: 60 mg/m³. TWA 8 hours: 20 ppm.
acetone	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 500 ppm. TWA 8 hours: 1200 mg/m³. STEL 15 minutes: 630 ppm. STEL 15 minutes: 1500 mg/m³.
Dipropyleneglycolmethylether	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) [(2-Metoksimetyylietoksi)-propanoli]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 310 mg/m³.
ethyl (S)-2-hydroxypropionate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) [Etyylilaktaatti]** TWA 8 hours: 5 ppm. TWA 8 hours: 25 mg/m³. STEL 15 minutes: 10 ppm. STEL 15 minutes: 49 mg/m³.

SECTION 8: Exposure controls/personal protection

Ethanol	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 1000 ppm. Notes: Permissible limit values (circulars) TWA 8 hours: 1900 mg/m³. Notes: Permissible limit values (circulars) STEL 15 minutes: 5000 ppm. Notes: Permissible limit values (circulars) STEL 15 minutes: 9500 mg/m³. Notes: Permissible limit values (circulars)
Butanone	**Ministry of Labor (France, 6/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 600 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 900 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 300 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
acetone	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 500 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 1210 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 2420 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 1000 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
Dipropyleneglycolmethylether	**Ministry of Labor (France, 6/2024) [(2-méthoxyméthyléthoxy)-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 308 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
Ethanol	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm. **DFG MAC-values list (Germany, 7/2023)** Carc 5, Muta 5, Develop C. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³ 4 times per shift [Interval: 1 hour].
Butanone	**TRGS 900 OEL (Germany, 6/2024)** Absorbed through skin. TWA 8 hours: 600 mg/m³. PEAK 15 minutes: 600 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 200 ppm. **DFG MAC-values list (Germany, 7/2023)** Develop C. Absorbed through skin. TWA 8 hours: 200 ppm. PEAK 15 minutes: 200 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 600 mg/m³. PEAK 15 minutes: 600 mg/m³ 4 times per shift [Interval: 1 hour].
acetone	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 1200 mg/m³. PEAK 15 minutes: 2400 mg/m³. TWA 8 hours: 500 ppm. PEAK 15 minutes: 1000 ppm. **DFG MAC-values list (Germany, 7/2023)** Develop B. TWA 8 hours: 500 ppm. PEAK 15 minutes: 1000 ppm 4 times per shift [Interval: 1 hour].

SECTION 8: Exposure controls/personal protection

	TWA 8 hours: 1200 mg/m³. PEAK 15 minutes: 2400 mg/m³ 4 times per shift [Interval: 1 hour].
Dipropyleneglycolmethylether	**TRGS 900 OEL (Germany, 6/2024) [(2-Methoxymethylethoxy) propanol]** TWA 8 hours: 310 mg/m³. PEAK 15 minutes: 310 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm. **DFG MAC-values list (Germany, 7/2023) [Dipropylene glycol monomethyl ether]** Develop D. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 310 mg/m³. PEAK 15 minutes: 310 mg/m³ 4 times per shift [Interval: 1 hour].
Ethanol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³.
Butanone	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021)** TWA 8 hours: 1780 mg/m³. STEL 15 minutes: 3560 mg/m³.
Dipropyleneglycolmethylether	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021) [μεθοξυμεθυλ-αιθοξυ-προπανόλη, 2-]** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 900 mg/m³.
Ethanol	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** TWA 8 hours: 1900 mg/m³. PEAK 15 minutes: 3800 mg/m³. PEAK 15 minutes: 2000 ppm. TWA 8 hours: 1000 ppm.
Butanone	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** Absorbed through skin. TWA 8 hours: 600 mg/m³. PEAK 15 minutes: 900 mg/m³. PEAK 15 minutes: 300 ppm. TWA 8 hours: 200 ppm.
acetone	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023) [(2-metoximetiletoxi)-propanol]** TWA 8 hours: 308 mg/m³. TWA 8 hours: 50 ppm.
Ethanol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2023)** TWA 8 hours: 1900 mg/m³. TWA 8 hours: 1000 ppm.
Butanone	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2023)** Absorbed through skin. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm. TWA 8 hours: 145 mg/m³. TWA 8 hours: 50 ppm.

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acetone	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2023)** TWA 8 hours: 600 mg/m³. TWA 8 hours: 250 ppm.
Dipropyleneglycolmethylether	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2023)** **[Díprópýlenglýkólmetýleter]** Absorbed through skin. TWA 8 hours: 300 mg/m³. TWA 8 hours: 50 ppm.
Ethanol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 15 minutes: 1000 ppm.
Butanone	**NAOSH (Ireland, 4/2024)** Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 200 ppm. OELV 8 hours: 600 mg/m³. OELV 15 minutes: 300 ppm. OELV 15 minutes: 900 mg/m³.
acetone	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 500 ppm. OELV 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**NAOSH (Ireland, 4/2024) [(2-methoxymethylethoxy)-1-propanol]** Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 308 mg/m³.
Butanone	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020)** Limit value 8 hours: 200 ppm. Limit value 8 hours: 600 mg/m³. Short Term 15 minutes: 300 ppm. Short Term 15 minutes: 900 mg/m³.
acetone	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020)** Limit value 8 hours: 500 ppm. Limit value 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 6/2020)** Absorbed through skin. Limit value 8 hours: 50 ppm. Limit value 8 hours: 308 mg/m³.
Ethanol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 1000 mg/m³.
Butanone	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** STEL 15 minutes: 300 ppm. TWA 8 hours: 67 ppm. STEL 15 minutes: 900 mg/m³. TWA 8 hours: 200 mg/m³.
acetone	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** **[Metoksipropoksi propanols]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 1000 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm.
Butanone	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm.

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	STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm.
acetone	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 2420 mg/m³. STEL 15 minutes: 1000 ppm.
Dipropyleneglycolmethylether	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** Absorbed through skin. TWA 8 hours: 308 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 450 mg/m³. STEL 15 minutes: 75 ppm.
Butanone	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021) [(2-méthoxyméthyléthoxy)-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Butanone	**EU OEL (Europe, 1/2022)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**EU OEL (Europe, 1/2022)** TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**EU OEL (Europe, 1/2022) [(2-Methoxymethylethoxy)-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** Carc B2. Absorbed through skin. TWA 8 hours: 260 mg/m³. STEL 15 minutes: 1900 mg/m³. STEL 15 minutes: 1000 ppm. TWA 8 hours: 137 ppm.
Butanone	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** Absorbed through skin. TWA 8 hours: 590 mg/m³. STEL 15 minutes: 900 mg/m³. TWA 8 hours: 197 ppm. STEL 15 minutes: 300 ppm.
acetone	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** STEL 15 minutes: 2420 mg/m³. TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1000 ppm.
Dipropyleneglycolmethylether	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024) [dipropyleenglycolmethylether]** TWA 8 hours: 300 mg/m³. TWA 8 hours: 48.7 ppm.

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Ethanol	**FOR-2011-12-06-1358 (Norway, 12/2022)** TWA 8 hours: 500 ppm. TWA 8 hours: 950 mg/m³.
Butanone	**FOR-2011-12-06-1358 (Norway, 12/2022)** TWA 8 hours: 75 ppm. TWA 8 hours: 220 mg/m³.
acetone	**FOR-2011-12-06-1358 (Norway, 12/2022)** TWA 8 hours: 125 ppm. TWA 8 hours: 295 mg/m³.
Dipropyleneglycolmethylether	**FOR-2011-12-06-1358 (Norway, 12/2022) [(2-metoksymetyletoksy)-propanol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 300 mg/m³.
Ethanol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 8/2023)** TWA 8 hours: 1900 mg/m³.
Butanone	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 8/2023)** Absorbed through skin. TWA 8 hours: 450 mg/m³. STEL 15 minutes: 900 mg/m³.
acetone	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 8/2023)** TWA 8 hours: 600 mg/m³. STEL 15 minutes: 1800 mg/m³.
Dipropyleneglycolmethylether	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 8/2023) [dipropylene glycol methyl ether]** Absorbed through skin. TWA 8 hours: 240 mg/m³. STEL 15 minutes: 480 mg/m³.
Ethanol	**Portuguese Institute of Quality (Portugal, 11/2014)** A3. STEL 15 minutes: 1000 ppm.
Butanone	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 200 ppm. STEL 15 minutes: 300 ppm.
acetone	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 500 ppm. STEL 15 minutes: 750 ppm.
Dipropyleneglycolmethylether	**Portuguese Institute of Quality (Portugal, 11/2014) [2-metoximetiletoxipropanol]** Absorbed through skin. TWA 8 hours: 100 ppm. STEL 15 minutes: 150 ppm.
Ethanol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 1900 mg/m³. VLA 8 hours: 1000 ppm. Short term 15 minutes: 9500 mg/m³. Short term 15 minutes: 5000 ppm.
Butanone	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 600 mg/m³. VLA 8 hours: 200 ppm.

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	Short term 15 minutes: 900 mg/m³. Short term 15 minutes: 300 ppm.
acetone	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 1210 mg/m³. VLA 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** Absorbed through skin. VLA 8 hours: 308 mg/m³. VLA 8 hours: 50 ppm.
Ethanol	**Government regulation SR c. 355/2006 (Slovakia, 7/2024)** Inhalation sensitiser. TWA 8 hours: 960 mg/m³. TWA 8 hours: 500 ppm. STEL 15 minutes: 1920 mg/m³. STEL 15 minutes: 1000 ppm.
Butanone	**Government regulation SR c. 355/2006 (Slovakia, 7/2024)** Inhalation sensitiser. TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 900 mg/m³. STEL 15 minutes: 300 ppm.
acetone	**Government regulation SR c. 355/2006 (Slovakia, 7/2024)** Inhalation sensitiser. TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm.
Dipropyleneglycolmethylether	**Government regulation SR c. 355/2006 (Slovakia, 7/2024) [2-metoxymetyl-etoxypropanol]** Absorbed through skin , Inhalation sensitiser. TWA 8 hours: 308 mg/m³ (2-methoxymetyl-ethoxypropanol). TWA 8 hours: 50 ppm (2-methoxymetyl-ethoxypropanol).
Ethanol	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 960 mg/m³. TWA 8 hours: 500 ppm. KTV 15 minutes: 1920 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 1000 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Butanone	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** Absorbed through skin. TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm. KTV 15 minutes: 900 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 300 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
acetone	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 1210 mg/m³. TWA 8 hours: 500 ppm. KTV 15 minutes: 1000 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 2420 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Dipropyleneglycolmethylether	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) [(2-metoksimetiletoksi)propanol]** Absorbed through skin. TWA 8 hours: 308 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 50 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].

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	KTV 15 minutes: 308 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Ethanol	**National institute of occupational safety and health (Spain, 1/2024)** STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1910 mg/m³.
Butanone	**National institute of occupational safety and health (Spain, 1/2024)** TWA 8 hours: 200 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**National institute of occupational safety and health (Spain, 1/2024)** TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
Dipropyleneglycolmethylether	**National institute of occupational safety and health (Spain, 1/2024) [éter metílico de dipropilenglicol]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 308 mg/m³.
Ethanol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 500 ppm. TWA 8 hours: 1000 mg/m³. STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1900 mg/m³.
Butanone	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 50 ppm. TWA 8 hours: 150 mg/m³. STEL 15 minutes: 300 ppm. STEL 15 minutes: 900 mg/m³.
acetone	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 250 ppm. TWA 8 hours: 600 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 1200 mg/m³.
Dipropyleneglycolmethylether	**Work environment authority Regulation 2018:1 (Sweden, 11/2022) [dipropylene glycol monomethyl ether]** Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 300 mg/m³. STEL 15 minutes: 75 ppm. STEL 15 minutes: 450 mg/m³.
Ethanol	**SUVA (Switzerland, 1/2024)** TWA 8 hours: 500 ppm. TWA 8 hours: 960 mg/m³. STEL 15 minutes: 1000 ppm. STEL 15 minutes: 1920 mg/m³.
Butanone	**SUVA (Switzerland, 1/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 590 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 590 mg/m³.
acetone	**SUVA (Switzerland, 1/2024)** TWA 8 hours: 500 ppm. TWA 8 hours: 1200 mg/m³. STEL 15 minutes: 1000 ppm. STEL 15 minutes: 2400 mg/m³.
Dipropyleneglycolmethylether	**SUVA (Switzerland, 1/2024) [Dipropylenglykolmethylether**

	(Isomerengemisch)] STEL 15 minutes: 50 ppm. Form: vapour and aerosols. STEL 15 minutes: 300 mg/m³. Form: vapour and aerosols. TWA 8 hours: 50 ppm. Form: vapour and aerosols. TWA 8 hours: 300 mg/m³. Form: vapour and aerosols.
Ethanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1920 mg/m³.
Butanone	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 899 mg/m³. STEL 15 minutes: 300 ppm. TWA 8 hours: 600 mg/m³. TWA 8 hours: 200 ppm.
acetone	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 3620 mg/m³. STEL 15 minutes: 1500 ppm. TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	
No exposure indices known.	
acetone	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** BLV: 80 mg/l, acetone [in urine]. Sampling time: at the end of the exposure or at the end of the work shift.
Butanone	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, biological limit values (Annex IV) (Croatia, 12/2023)** BEI: 2.6 mg/g creatinine, ethyl-methyl ketone [in urine]. Sampling time: at the end of the work shift. BEI: 4.08 mmol/mol creatinine, ethyl-methyl ketone [in urine]. Sampling time: at the end of the work shift.
acetone	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, biological limit values (Annex IV) (Croatia, 12/2023)** BEI: 20 mg/g creatinine, acetone [in urine]. Sampling time: at the end of the work shift. BEI: 39 mmol/mol creatinine, acetone [in urine]. Sampling time: at the end of the work shift. BEI: 20 mg/l, acetone [in blood]. Sampling time: at the end of the work shift. BEI: 0.34 mmol/l, acetone [in blood]. Sampling time: at the end of the work 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.	

Butanone	**DFG BEI-values list (Germany, 7/2023)** Notes: danger from percutaneous absorption (see p. 211 and p. 228). BEI: 2 mg/l, 2-butanone [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 2/2024)** BEI: 2 mg/l, 2-butanone [in urine]. Sampling time: end of exposure or end of shift.
acetone	**DFG BEI-values list (Germany, 7/2023)** BEI: 50 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift. **TRGS 903 - BEI Values (Germany, 2/2024)** BEI: 50 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift.
No exposure indices known.	
Butanone	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** BEI: 28 µmol/l, methyl-ethyl-ketone [in urine]. Sampling time: at the end of the shift. BEI: 2 mg/l, methyl-ethyl-ketone [in urine]. Sampling time: at the end of the shift.
acetone	**5/2020. (II. 6.) ITM Decree (Hungary, 12/2023)** BEI: 1380 µmol/l, acetone [in urine]. Sampling time: at the end of the shift. BEI: 80 mg/l, acetone [in urine]. Sampling time: at the end of the shift.
No exposure indices known.	
Butanone	**NAOSH (Ireland, 1/2011)** BMGV: 70 µmol/l, butan-2- one [in urine]. Sampling time: post shift.
acetone	**NAOSH (Ireland, 1/2011)** BMGV: 50 mg/l, acetone [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
No exposure indices known.	
Butanone	**Minister Cabinet Regulations No.325 - BEI (Latvia, 3/2024)** BEI: 2 mg/l, 2-butanone [in urine]. Sampling time: at the end of the exposure or at the end of the shift.
acetone	**Minister Cabinet Regulations No.325 - BEI (Latvia, 3/2024)** BEI: 80 mg/l, acetone [in urine]. Sampling time: at the end of the exposure or 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.	
Butanone	**Portuguese Institute of Quality (Portugal, 11/2014)** BEI: 2 mg/l, methyl ethyl ketone (MEK) [in urine]. Sampling time: end of shift.
acetone	**Portuguese Institute of Quality (Portugal, 11/2014)** BEI: 50 mg/l, acetone [in urine]. Sampling time: end of shift.

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Butanone	**HG 1218/2006, Annex 2, with subsequent modifications and additions (Romania, 3/2024)** OBLV: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
acetone	**HG 1218/2006, Annex 2, with subsequent modifications and additions (Romania, 3/2024)** OBLV: 50 mg/l, acetone [in urine]. Sampling time: end of shift.
acetone	**Government regulation SR c. 355/2006 (Slovakia, 5/2024)** BLV: 103.9 µmol/mmol creatinine, as acetone [in urine]. Sampling time: at the end of exposure or work shift. BLV: 53.36 mg/g creatinine, as acetone [in urine]. Sampling time: at the end of exposure or work shift. BLV: 1378 µmol/l, as acetone [in urine]. Sampling time: at the end of exposure or work shift. BLV: 80 mg/l, as acetone [in urine]. Sampling time: at the end of exposure or work shift.
Butanone	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** BAT: 2 mg/l, 2-butanone [in urine]. Sampling time: at the end of the work shift.
acetone	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** BAT: 80 mg/l, acetone [in urine]. Sampling time: at the end of the work shift.
Butanone	**National institute of occupational safety and health (Spain, 1/2024)** VLB: 2 mg/l, methyl ethyl ketone [in urine]. Sampling time: end of shift.
acetone	**National institute of occupational safety and health (Spain, 1/2024)** VLB: 50 mg/l, acetone [in urine]. Sampling time: end of shift.
No exposure indices known.	
Butanone	**SUVA (Switzerland, 1/2024)** BEI: 2 mg/l, 2-butanone (MEK) [in urine]. Sampling time: before the next shift or 4pm. BEI: 27.7 µmol/l, 2-butanone (MEK) [in urine]. Sampling time: before the next shift or 4pm.
acetone	**SUVA (Switzerland, 1/2024)** BEI: 50 mg/l, acetone [in urine]. Sampling time: immediately after exposure or after working hours. BEI: 0.86 mmol/l, acetone [in urine]. Sampling time: immediately after exposure or after working hours.
Butanone	**EH40/2005 BMGVs (United Kingdom (UK), 1/2020)** 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	Result

Ethanol	**DNEL - Workers - Long term - Inhalation** 380 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 87 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 114 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 206 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 343 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 950 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 1900 mg/m³ Effects: Local
Butanone	**DNEL - General population - Long term - Oral** 31 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 106 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 412 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 450 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 600 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 900 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 1161 mg/kg bw/day Effects: Systemic
acetone	**DNEL - General population - Long term - Oral** 62 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 62 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 186 mg/kg bw/day

	Effects: Systemic **DNEL - General population - Long term - Inhalation** 200 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 1210 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 2420 mg/m³ Effects: Local
Dipropyleneglycolmethylether	**DNEL - General population - Long term - Oral** 36 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 37.2 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 121 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 283 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 308 mg/m³ Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

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

Individual protection measures

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

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

Skin protection

SECTION 8: Exposure controls/personal protection

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

Recommendations : Wear suitable gloves tested to EN374.

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

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

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

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

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

Filter type: A

Filter type (spray application): A P

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
acetone	56.05	132.9	
Ethanol	78.29	172.9	

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.1% ((2-methoxymethylethoxy)propanol)
Upper: 19% (ethanol)

Flash point : Closed cup: 12°C (53.6°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Dipropyleneglycolmethylether	207	404.6	EU A.15
Butanone	404	759.2	

SECTION 9: Physical and chemical properties

Decomposition temperature : Not available.

pH : Not applicable.

Viscosity : Not available.

Solubility(ies) :

Not available.

Solubility in water : Not available.

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

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
acetone	180.01463	24				
Butanone	78.7564	10.5				

Relative density : Not available.

Density : 0.9 g/cm³

Vapour density : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

SECTION 10: Stability and reactivity

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

10.2 Chemical stability : The product is stable.

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

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

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

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

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name **Result**

SECTION 11: Toxicological information

Ethanol	**Rat - Oral - LD50** 7 g/kg **Rat - Inhalation - LC50 Vapour** 124700 mg/m³ [4 hours]
Butanone	**Rabbit - Dermal - LD50** 6480 mg/kg **Rat - Oral - LD50** 2737 mg/kg
acetone	**Rat - Oral - LD50** 5800 mg/kg Toxic effects: Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Ethanol	7000	N/A	N/A	124.7	N/A
Butanone	2737	6480	N/A	N/A	N/A
acetone	5800	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
Ethanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 400 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
Butanone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 14 mg **Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 402 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
acetone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Mild irritant** Amount/concentration applied: 395 mg
Dipropyleneglycolmethylether	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

Serious eye damage/eye irritation

Product/ingredient name	Result
Ethanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 0.066666667 minutes Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 uL **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 500 mg
acetone	**Human - Eyes - Mild irritant** Amount/concentration applied: 186300 ppm **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 10 uL **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 20 mg
Dipropyleneglycolmethylether	**Human - Eyes - Mild irritant** Amount/concentration applied: 8 mg **Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Butanone	STOT SE 3, H336 (Narcotic effects)
acetone	STOT SE 3, H336 (Narcotic effects)
ethyl (S)-2-hydroxypropionate	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : No specific data.

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 [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

SECTION 11: Toxicological information

Not available.

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

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
Ethanol	**Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* 2000 µg/l [48 hours] Effect: Physiology **Acute - LC50 - Fresh water** Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 42000 µg/l [4 days] Effect: Mortality **Acute - EC50 - Marine water** Algae - Green algae - *Ulva pertusa* 17.921 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Marine water** Algae - Green algae - *Ulva pertusa* 4.995 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Fresh water** Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae Age: 3 days 0.375 µl/l [12 weeks] Effect: Morphology **Chronic - NOEC - Fresh water** Daphnia - Water flea - *Daphnia magna* - Neonate Age: <24 hours 100 µl/l [21 days] Effect: Mortality
Butanone	**Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* - Larvae Age: <24 hours 5091000 µg/l [48 hours] Effect: Intoxication **Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 days; Size: 22 mm; Weight: 0.167 g 3220000 µg/l [96 hours] Effect: Mortality **Acute - EC50 - Marine water** Algae - Diatom - *Skeletonema costatum* >500000 µg/l [96 hours] Effect: Population
acetone	**Acute - LC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* 10000 µg/l [48 hours] Effect: Mortality

Acute - LC50 - Fresh water
Fish - Guppy - *Poecilia reticulata*
Age: 4 to 12 months; Size: 2 to 10 cm
5600 ppm [96 hours]
Effect: Mortality

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

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

Chronic - NOEC - Fresh water
Crustaceans - Daphnia - *Daphniidae*
0.016 ml/l [21 days]
Effect: Population

Chronic - NOEC - Marine water
Fish - Threespine stickleback - *Gasterosteus aculeatus* - Larvae
Age: 7 days
5 µg/l [42 days]
Effect: Growth

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Ethanol	-0.35	-	Low
Butanone	0.3	-	Low
acetone	-0.23	-	Low
Dipropyleneglycolmethylether	0.004	-	Low
ethyl (S) -2-hydroxypropionate	0.31	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
Ethanol	0.2	1.59008
Butanone	1.2	15.8984
acetone	0.56	3.6548
ethyl (S)-2-hydroxypropionate	1.25	17.9589

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Ethanol	No	No	No	No	No	No	No
Butanone	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
ethyl (S) -2-hydroxypropionate	No	No	No	No	No	No	No

SECTION 12: Ecological information

Mobility : Not available.

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

12.5 Results of PBT and vPvB assessment

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Ethanol	No	No	No	No	No	No	No
Butanone	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
ethyl (S) -2-hydroxypropionate	No	No	No	No	No	No	No

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Ethanol	No	No	No	No	No	No	No
Butanone	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
ethyl (S) -2-hydroxypropionate	No	No	No	No	No	No	No

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

12.6 Endocrine disrupting properties

Not available.

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

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : 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.

European waste catalogue (EWC) : 08.01.11

Packaging

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

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

SECTION 14: Transport information

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

Additional information

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

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

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]
HOLZSTAUBBINDEMITTEL 0340-00	≥90	3

Labelling :

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

SECTION 15: Regulatory information

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

Explosive precursors : This product is regulated by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

Austria

VbF class : Category 2

Limitation of the use of organic solvents : Permitted.

Belgium

Czech Republic

Storage code : I

Denmark

Fire class : I-1

MAL-code : 4-3

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, respiratory protection with air supply and arm protectors/apron/coveralls/protective clothing must be worn as appropriate or as instructed.

MAL-code: 4-3

Application: When spraying in new* booths if the operator is outside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

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

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.

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

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

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

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

- Air-supplied full mask must be worn.

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

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

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

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

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

*See Regulations.

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

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

List of undesirable substances : Not listed

Finland

France

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

Ethanol	RG 84
Butanone	RG 84
acetone	RG 84
Dipropyleneglycolmethylether	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)

SECTION 15: Regulatory information

Number [Class]	Description	%
5.2.1	Total dust	9.8
5.2.5	Organic substances	90.2
5.2.5 [I]	Organic substances	86

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) : A(1) Highly toxic for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

Norway

Sweden

Flammable liquid class (SRVFS 2005:10) : 1

Switzerland

VOC content : VOC (w/w): 86%

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. 2, H225 Eye Irrit. 2, H319	On basis of test data Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

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
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Version : 1.01

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.