SAFETY DATA SHEET

TEKNONISO COMBI 333-301 - BASE 1

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

1.1 Product identifier

Product name : TEKNONISO COMBI 333-301 - BASE 1

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

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

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

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : In an emergency, call 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Flam. Liq. 3, H226
Eye Dam. 1, H318

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 : H226 - Flammable liquid and vapour.
H318 - Causes serious eye damage.

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 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

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

Hazardous ingredients : Contains: Propan-1-ol

Supplemental label elements :

SECTION 2: Hazards identification

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
tetraethyl silicate	REACH #: 01-2119496195-28 EC: 201-083-8 CAS: 78-10-4 Index: 014-005-00-0	≥10 - <20	Flam. Liq. 3, H226 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
n-Butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≤10	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Propan-1-ol	REACH #: 01-2119486761-29 EC: 200-746-9 CAS: 71-23-8 Index: 603-003-00-0	≤5	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336	-	[1]
propylidynetrimethanol	REACH #: 01-2119486799-10 EC: 201-074-9 CAS: 77-99-6	≤0.3	Repr. 2, H361fd **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 : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. 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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

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

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : 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
sulfur oxides
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. Do not breathe 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.

SECTION 6: Accidental release measures

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

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

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. 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
tetraethyl silicate	**Regulation on Limit Values - MAC (Austria, 12/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³. CEIL 5 minutes: 10 ppm 8 times per shift. CEIL 5 minutes: 88 mg/m³ 8 times per shift.
n-Butyl acetate	**Regulation on Limit Values - MAC (Austria, 12/2024)** **[Butylacetat alle Isomeren außer tert-Butylacet]** CEIL: 480 mg/m³.

	CEIL: 100 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
Propan-1-ol	**Regulation on Limit Values - MAC (Austria, 12/2024)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³.
tetraethyl silicate	**Limit values (Belgium, 12/2023)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Limit values (Belgium, 12/2023) [butylacetaat]** STEL 15 minutes: 712 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 238 mg/m³. TWA 8 hours: 50 ppm.
Propan-1-ol	**Limit values (Belgium, 12/2023)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 250 mg/m³.
tetraethyl silicate	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 44 mg/m³. Limit value 8 hours: 5 ppm.
n-Butyl acetate	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 241 mg/m³. Limit value 15 minutes: 723 mg/m³. Limit value 15 minutes: 150 ppm. Limit value 8 hours: 50 ppm.
Propan-1-ol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 15 minutes: 500 mg/m³. Limit value 8 hours: 300 mg/m³.
propylidynetrimethanol	**Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024)** Limit value 8 hours: 50 mg/m³.
tetraethyl silicate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** ELV 8 hours: 5 ppm. ELV 8 hours: 44 mg/m³.
n-Butyl acetate	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 723 mg/m³. STELV 15 minutes: 150 ppm. ELV 8 hours: 241 mg/m³. ELV 8 hours: 50 ppm.
Propan-1-ol	**Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023)** STELV 15 minutes: 625 mg/m³. STELV 15 minutes: 250 ppm. ELV 8 hours: 500 mg/m³. ELV 8 hours: 200 ppm.
tetraethyl silicate	**Department of labour inspection (Cyprus, 7/2021)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Department of labour inspection (Cyprus, 7/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.

SECTION 8: Exposure controls/personal protection

tetraethyl silicate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm. STEL 15 minutes: 176 mg/m³. STEL 15 minutes: 20.33 ppm.
n-Butyl acetate	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
Propan-1-ol	**Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023)** TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm. STEL 15 minutes: 1000 mg/m³. STEL 15 minutes: 400 ppm.
tetraethyl silicate	**Working Environment Authority (Denmark, 12/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³. STEL 15 minutes: 88 mg/m³. STEL 15 minutes: 10 ppm.
n-Butyl acetate	**Working Environment Authority (Denmark, 12/2024) [butylacetat, alle isomerer]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Working Environment Authority (Denmark, 12/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 1000 mg/m³. STEL 15 minutes: 400 ppm.
tetraethyl silicate	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Propan-1-ol	**Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) [propanool]** TWA 8 hours: 350 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 600 mg/m³. STEL 15 minutes: 250 ppm.
tetraethyl silicate	**EU OEL (Europe, 1/2022)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.

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tetraethyl silicate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 5 ppm. TWA 8 hours: 43 mg/m³. STEL 15 minutes: 10 ppm. STEL 15 minutes: 86 mg/m³.
n-Butyl acetate	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 150 ppm. TWA 8 hours: 720 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 960 mg/m³.
Propan-1-ol	**Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 620 mg/m³.
tetraethyl silicate	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 5 ppm. Notes: Indicative regulatory limit values (decree of 30-06-2004 modified) TWA 8 hours: 44 mg/m³. Notes: Indicative regulatory limit values (decree of 30-06-2004 modified)
n-Butyl acetate	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 50 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) TWA 8 hours: 241 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 150 ppm. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code) STEL 15 minutes: 723 mg/m³. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)
Propan-1-ol	**Ministry of Labor (France, 6/2024)** TWA 8 hours: 200 ppm. Notes: Permissible limit values (circulars) TWA 8 hours: 500 mg/m³. Notes: Permissible limit values (circulars)
tetraethyl silicate	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 12 mg/m³. TWA 8 hours: 1.4 ppm. PEAK 15 minutes: 12 mg/m³. PEAK 15 minutes: 1.4 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop D. TWA 8 hours: 10 ppm. PEAK 15 minutes: 10 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 86 mg/m³. PEAK 15 minutes: 86 mg/m³ 4 times per shift [Interval: 1 hour].
n-Butyl acetate	**TRGS 900 OEL (Germany, 6/2024)** TWA 8 hours: 300 mg/m³. TWA 8 hours: 62 ppm. PEAK 15 minutes: 600 mg/m³. PEAK 15 minutes: 124 ppm. **DFG MAC-values list (Germany, 7/2024)** Develop C. TWA 8 hours: 100 ppm. PEAK 15 minutes: 200 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 480 mg/m³. PEAK 15 minutes: 960 mg/m³ 4 times per shift [Interval: 1 hour].

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tetraethyl silicate	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Propan-1-ol	**Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)** TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 625 mg/m³.
tetraethyl silicate	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**5/2020. (II. 6.) ITM Decree (Hungary, 1/2025)** Sensitiser. TWA 8 hours: 241 mg/m³. PEAK 15 minutes: 723 mg/m³. PEAK 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
tetraethyl silicate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [bútýlasetat, allir ísómerar]** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024)** Absorbed through skin. TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm.
tetraethyl silicate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 44 mg/m³. OELV 8 hours: 5 ppm.
n-Butyl acetate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 241 mg/m³. OELV 15 minutes: 150 ppm. OELV 15 minutes: 723 mg/m³.
Propan-1-ol	**NAOSH (Ireland, 4/2024)** Absorbed through skin. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 100 ppm.
tetraethyl silicate	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Limit value 8 hours: 5 ppm. Limit value 8 hours: 44 mg/m³.
n-Butyl acetate	**Legislative Decree No. 81/2008. Title IX. Protection from chemical agents, carcinogens and mutagens (Italy, 9/2024)** Short Term 15 minutes: 150 ppm. Short Term 15 minutes: 723 mg/m³. Limit value 8 hours: 50 ppm. Limit value 8 hours: 241 mg/m³.

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tetraethyl silicate	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm.
Propan-1-ol	**Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024)** TWA 8 hours: 10 mg/m³.
tetraethyl silicate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm.
Propan-1-ol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) [propanolis, visi izomerai]** TWA 8 hours: 350 mg/m³. TWA 8 hours: 150 ppm. STEL 15 minutes: 600 mg/m³. STEL 15 minutes: 250 ppm.
propylidynetrimethanol	**Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024)** CEIL: 5 ppm.
tetraethyl silicate	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Grand-Duchy Regulation 2016. Chemical agents. Annex I (Luxembourg, 3/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
tetraethyl silicate	**EU OEL (Europe, 1/2022)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**EU OEL (Europe, 1/2022)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.
tetraethyl silicate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 5/2024)** TWA 8 hours: 241 mg/m³. STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm.
tetraethyl silicate	**FOR-2011-12-06-1358 (Norway, 5/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**FOR-2011-12-06-1358 (Norway, 5/2024)** STEL 15 minutes: 723 mg/m³. STEL 15 minutes: 150 ppm. TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm.

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Propan-1-ol	**FOR-2011-12-06-1358 (Norway, 5/2024)** Absorbed through skin. TWA 8 hours: 100 ppm. TWA 8 hours: 245 mg/m³.
tetraethyl silicate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** TWA 8 hours: 240 mg/m³. STEL 15 minutes: 720 mg/m³.
Propan-1-ol	**Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024)** Absorbed through skin. TWA 8 hours: 200 mg/m³. STEL 15 minutes: 600 mg/m³.
tetraethyl silicate	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 10 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**Portuguese Institute of Quality (Portugal, 11/2014)** TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm. **Decree-Law 24/2012 - Occupational exposure limits for chemical agents (Portugal, 6/2021)** STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³.
Propan-1-ol	**Portuguese Institute of Quality (Portugal, 11/2014)** A4. TWA 8 hours: 100 ppm.
tetraethyl silicate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 44 mg/m³. VLA 8 hours: 5 ppm.
n-Butyl acetate	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 241 mg/m³. VLA 8 hours: 50 ppm. Short term 15 minutes: 723 mg/m³. Short term 15 minutes: 150 ppm.
Propan-1-ol	**HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024)** VLA 8 hours: 200 mg/m³. VLA 8 hours: 81 ppm. Short term 15 minutes: 500 mg/m³. Short term 15 minutes: 203 ppm.

SECTION 8: Exposure controls/personal protection

tetraethyl silicate	**Government regulation SR c. 355/2006 (Slovakia, 6/2024)** Inhalation sensitiser. TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**Government regulation SR c. 355/2006 (Slovakia, 6/2024) [butylacetáty]** Inhalation sensitiser. TWA 8 hours: 241 mg/m³ (Butyl acetates). TWA 8 hours: 50 ppm (Butyl acetates). STEL 15 minutes: 723 mg/m³ (Butyl acetates). STEL 15 minutes: 150 ppm (Butyl acetates).
tetraethyl silicate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm. KTV 15 minutes: 44 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 5 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
n-Butyl acetate	**Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)** TWA 8 hours: 241 mg/m³. TWA 8 hours: 50 ppm. KTV 15 minutes: 723 mg/m³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 150 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
tetraethyl silicate	**National institute of occupational safety and health (Spain, 1/2024)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**National institute of occupational safety and health (Spain, 1/2024)** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Propan-1-ol	**National institute of occupational safety and health (Spain, 1/2024)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³. STEL 15 minutes: 400 ppm. STEL 15 minutes: 1000 mg/m³.
tetraethyl silicate	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** STEL 15 minutes: 86 mg/m³. STEL 15 minutes: 10 ppm. TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**Work environment authority Regulation 2018:1 (Sweden, 11/2022) [butyl acetate]** TWA 8 hours: 50 ppm. TWA 8 hours: 241 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 723 mg/m³.
Propan-1-ol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)** TWA 8 hours: 150 ppm. TWA 8 hours: 350 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 600 mg/m³.
propylidynetrimethanol	**Work environment authority Regulation 2018:1 (Sweden, 11/2022)**

	TWA 8 hours: 5 mg/m³.
tetraethyl silicate	**SUVA (Switzerland, 1/2025)** TWA 8 hours: 5 ppm. TWA 8 hours: 44 mg/m³.
n-Butyl acetate	**SUVA (Switzerland, 1/2025)** TWA 8 hours: 50 ppm. TWA 8 hours: 240 mg/m³. STEL 15 minutes: 150 ppm. STEL 15 minutes: 720 mg/m³.
Propan-1-ol	**SUVA (Switzerland, 1/2025)** Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 500 mg/m³.
tetraethyl silicate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** TWA 8 hours: 44 mg/m³. TWA 8 hours: 5 ppm.
n-Butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
Propan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 625 mg/m³. STEL 15 minutes: 250 ppm. TWA 8 hours: 500 mg/m³. TWA 8 hours: 200 ppm.

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.	
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No exposure indices known.	

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

DNELs/DMELs

Product/ingredient name	Result
tetraethyl silicate	**DNEL - General population - Long term - Dermal** 1.8 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 5.3 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 5.3 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 5.3 mg/m³ Effects: Systemic **DNEL - General population - Long term - Inhalation** 5.3 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 6.3 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Inhalation** 44 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 44 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 44 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 44 mg/m³ Effects: Systemic

n-Butyl acetate	**DNEL - General population - Long term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 3.4 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Dermal** 6 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 7 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 11 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 12 mg/m³ Effects: Systemic **DNEL - General population - Long term - Inhalation** 35.7 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 48 mg/m³ Effects: Systemic **DNEL - General population - Short term - Inhalation** 300 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 300 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 300 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Systemic
Propan-1-ol	**DNEL - General population - Short term - Inhalation** 518 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1037 mg/m³ Effects: Systemic
propylidynetrimethanol	**DNEL - General population - Long term - Oral**

0.34 mg/kg bw/day
Effects: Systemic

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

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

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

DNEL - Workers - Long term - Inhalation
3.3 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

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

Recommendations : Wear suitable gloves tested to EN374.

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

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

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

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 : White.

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
Propan-1-ol	97	206.6	
n-Butyl acetate	126	258.8	OECD 103

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.4% (n-butyl acetate)
Upper: 7.6% (n-butyl acetate)

Flash point : Closed cup: 25°C (77°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Propan-1-ol	400	752	DIN 51794
n-Butyl acetate	415	779	EU A.15

Decomposition temperature : Not available.

pH : Not applicable.

Viscosity : Kinematic (40°C): >20.5 mm^2/s

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
Propan-1-ol	21.15146	2.8				
n-Butyl acetate	11.25096	1.5	DIN EN 13016-2			

Relative density : Not available.

SECTION 9: Physical and chemical properties

Density : 1.5 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
tetraethyl silicate	**Rat - Oral - LD50** 6270 mg/kg
n-Butyl acetate	**Rat - Oral - LD50** 10760 mg/kg EU **Rabbit - Dermal - LD50** 14112 mg/kg **Rat - Inhalation - LC50 Vapour** 0.74 mg/l [4 hours]
Propan-1-ol	**Rat - Oral - LD50** 1870 mg/kg **Rabbit - Dermal - LD50** 5040 mg/kg
propylidynetrimethanol	**Rat - Oral - LD50** 14000 mg/kg

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

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)
TEKNONISO COMBI 333-301	N/A	N/A	N/A	70.4	N/A
tetraethyl silicate	6270	N/A	N/A	11	N/A
n-Butyl acetate	10760	14112	N/A	N/A	N/A
Propan-1-ol	N/A	5040	N/A	N/A	N/A
propylidynetrimethanol	14000	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
tetraethyl silicate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
n-Butyl acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
Propan-1-ol	**Human - Skin - Mild irritant** Duration of treatment/exposure: 47 hours Amount/concentration applied: 100 % **Human - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 % **Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
tetraethyl silicate	**Guinea pig - Eyes - Severe irritant** Duration of treatment/exposure: 2 hours Amount/concentration applied: 2500 ppm **Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 100 mg
n-Butyl acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
Propan-1-ol	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

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
tetraethyl silicate	STOT SE 3, H335 (Respiratory tract irritation)
n-Butyl acetate	STOT SE 3, H336 (Narcotic effects)
Propan-1-ol	STOT SE 3, H336 (Narcotic effects)

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 damage.

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
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

SECTION 11: Toxicological information

Ingestion : Adverse symptoms may include the following:
stomach pains

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

Not available.

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

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
n-Butyl acetate	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g 18000 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina* 32 mg/l [48 hours] Effect: Mortality
Propan-1-ol	**Acute - LC50 - Marine water** Fish - Bleak - *Alburnus alburnus* Size: 8 to 10 cm 3800000 µg/l [96 hours] Effect: Mortality **Acute - LC50 - Fresh water** Crustaceans - Scud - *Gammarus pulex* 1000000 µg/l [48 hours] Effect: Mortality **Acute - EC50 - Fresh water** Algae - Green algae - *Selenastrum sp.* 4480000 µg/l [96 hours]
propylidynetrimethanol	**Acute - EC50 - Fresh water**

Daphnia - Water flea - *Daphnia magna*
Age: 1 to 3 days
13000000 µg/l [48 hours]
Effect: Intoxication

Acute - LC50 - Marine water
Fish - Sheepshead minnow - *Cyprinodon variegatus*
14400000 µg/l [96 hours]
Effect: Mortality

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
tetraethyl silicate	3.18	-	Low
n-Butyl acetate	2.3	-	Low
Propan-1-ol	0.2	-	Low
propylidynetrimethanol	-0.47	<1 [OECD 305 C]	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logKoc	Koc
tetraethyl silicate	1.7	52.828
n-Butyl acetate	1.5	33.2139
Propan-1-ol	0.48	3.03193
propylidynetrimethanol	1.2	16.5101

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
tetraethyl silicate	No	No	No	No	No	No	No
n-Butyl acetate	No	No	No	No	No	No	No
Propan-1-ol	No	No	No	No	No	No	No
propylidynetrimethanol	No	No	No	No	No	No	No

Mobility : Not available.

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

12.5 Results of PBT and vPvB assessment

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
tetraethyl silicate	No	N/A	N/A	No	N/A	N/A	N/A
n-Butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
Propan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
propylidynetrimethanol	No	N/A	No	Yes	No	N/A	No

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
tetraethyl silicate	No	No	No	No	No	No	No
n-Butyl acetate	No	No	No	No	No	No	No
Propan-1-ol	No	No	No	No	No	No	No
propylidynetrimethanol	No	No	No	No	No	No	No

SECTION 12: Ecological information

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.

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

European waste catalogue (EWC) : 080111

Packaging

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

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

SECTION 14: Transport information

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

SECTION 14: Transport information

Additional information

ADR/RID : **Viscous liquid exception** This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1.
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
Viscous liquid exception This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.2.3.1.5.1.

IMDG : **Viscous liquid exception** This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.

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]
TEKNONISO COMBI 333-301	≥90	3

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 (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

SECTION 15: Regulatory information

Category
P5c

National regulations

Austria

Limitation of the use of organic solvents : Permitted.

Belgium

Book VI carcinogenic agents annex VI.2-1 - VI.2-3

Ingredient name	Status
Silice	Listed

Czech Republic

Storage code : II

Denmark

Product registration number : 4549448

Fire class : II-1

Executive Order No. 1795/2015

Ingredient name	Annex I Section A	Annex I Section B
titanium dioxide	Listed	-

MAL-code : 4-6

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

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

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

MAL-code: 4-6
Application: When using scraper or knife, brush, roller etc. for pre- and post-treatments in a spray booth where the operator is outside the spray zone and when working in similar new* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When spraying in new* booths and cabins with non-atomizing guns.

- Protective clothing 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. 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, protective clothing and eye protection must be worn.

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

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

When spraying in existing* spray booths, if the operator is outside the spray zone. 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 full mask and protective clothing 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, protective clothing and hood must be worn.

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

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

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

*See Regulations.

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

List of undesirable substances : Not listed

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

Finland

France

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

n-Butyl acetate	RG 84
Propan-1-ol	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 [Class]	Description	%
5.2.1	Total dust	72.8
5.2.5	Organic substances	27.2
5.2.5 [I]	Organic substances	23.7

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

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

SECTION 15: Regulatory information

Ingredient name	Carcinogen	Mutagen	Reproductive toxicity - Fertility	Reproductive toxicity - Development	Harmful via breastfeeding
Naphtha (petroleum), hydrodesulfurized heavy	Listed	Listed	-	-	-
Naphtha (petroleum), hydrotreated heavy	Listed	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): 11.5%

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

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

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

Classification	Justification
Flam. Liq. 3, H226 Eye Dam. 1, H318	On basis of test data Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 27/10/2025

Date of previous issue : No previous validation

Version : 1

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.