

SAFETY DATA SHEET



Tankguard Zinc Comp A

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

1.1 Product identifier

Product name : Tankguard Zinc Comp A
Product code : 10200
Product description : Paint.
Product type : Liquid.
Other means of identification : Not available.

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

Use in coatings - Industrial use
 Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun A/S
 P.O.Box 2021
 3202 Sandefjord
 Norway
 Tel: + 47 33 45 70 00
 Fax: +47 33 45 72 42
 E-mail: SDSJotun@jotun.no

Jotun Paints (Europe) Ltd.
 Stather Road
 Flixborough, Scunthorpe
 North Lincolnshire
 DN15 8RR
 England

Tel: +44 17 24 40 00 00
 Fax: +44 17 24 40 01 00

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Contact NHS Direct; phone 0845 4647 or 111. Open 24/7.

Supplier

Telephone number : +47 33 45 70 00 Jotun Norway (head office)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 2, H225
 Eye Irrit. 2, H319
 STOT SE 3, H336

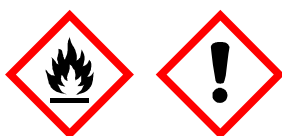
The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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.

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SECTION 2: Hazards identification

- Hazard statements** : H225 - Highly flammable liquid and vapour.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
- Precautionary statements**
- General** : Not applicable.
- Prevention** : P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapour.
- Response** : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
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** : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Not applicable.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

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 | Type |
|-------------------------|---|-----------|---|---------|
| 1-methoxy-2-propanol | REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3 | ≥25 - ≤50 | Flam. Liq. 3, H226 STOT SE 3, H336 | [1] [2] |
| ethanol | REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5 | ≥10 - ≤25 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 | [1] [2] |
| 2-butoxyethanol | REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0 | ≤8.2 | Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 | [1] [2] |
| propan-2-ol | REACH #: | ≤5 | Flam. Liq. 2, H225 | [1] [2] |

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SECTION 3: Composition/information on ingredients

| | | | | |
|---------------------|--|------|---|---------|
| tetraethyl silicate | 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0 REACH #: 01-2119496195-28 EC: 201-083-8 CAS: 78-10-4 Index: 014-005-00-0 | ≤5 | Eye Irrit. 2, H319 STOT SE 3, H336 Flam. Liq. 3, H226 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335 | [1] [2] |
| xylene | 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9 | ≤1.7 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above. | [1] [2] |

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

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness
- Inhalation** : Adverse symptoms may include the following:
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- 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
 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.

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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

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SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. 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 tonne | 50000 tonne |

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

[Occupational exposure limits](#)

| Product/ingredient name | Exposure limit values |
|-------------------------|---|
| 1-methoxy-2-propanol | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. |
| ethanol | EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 1920 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours. |
| 2-butoxyethanol | EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. STEL: 246 mg/m ³ 15 minutes. TWA: 123 mg/m ³ 8 hours. |
| propan-2-ol | EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 1250 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 999 mg/m ³ 8 hours. TWA: 400 ppm 8 hours. |
| tetraethyl silicate | EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 44 mg/m ³ 8 hours. TWA: 5 ppm 8 hours. |
| xylene | EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] Absorbed through skin. STEL: 441 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 220 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. |

[Biological exposure indices](#)

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SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Exposure indices |
|-------------------------|--|
| 2-butoxyethanol | EH40/2005 BMGVs (United Kingdom (UK), 8/2018) BGV: 240 mmol/mol creatinine, butoxyacetic acid [in urine]. Sampling time: post shift. |
| xylene | EH40/2005 BMGVs (United Kingdom (UK), 8/2018) [Xylene, o-, m-, p- or mixed isomers] BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift. |

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|-------------------------|-----------------|-----------------------|-------------------------|--------------------------------|----------|
| 1-methoxy-2-propanol | DNEL | Long term Oral | 33 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 43.9 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 78 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 183 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 369 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 553.5 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 553.5 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 380 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Oral | 87 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 114 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 206 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 343 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 950 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 1900 mg/m ³ | Workers | Local |
| ethanol | DNEL | Short term Dermal | 89 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 663 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 246 mg/m ³ | Workers | Local |
| | DNEL | Long term Dermal | 75 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 98 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Dermal | 44.5 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Short term Inhalation | 426 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Short term Oral | 13.4 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term | 123 mg/m ³ | General | Local |
| | 2-butoxyethanol | DNEL | Short term Dermal | 89 mg/kg bw/day | Workers |
| DNEL | | Short term Inhalation | 663 mg/m ³ | Workers | Systemic |
| DNEL | | Short term Inhalation | 246 mg/m ³ | Workers | Local |
| DNEL | | Long term Dermal | 75 mg/kg bw/day | Workers | Systemic |
| DNEL | | Long term Inhalation | 98 mg/m ³ | Workers | Systemic |
| DNEL | | Short term Dermal | 44.5 mg/kg bw/day | General population [Consumers] | Systemic |
| DNEL | | Short term Inhalation | 426 mg/m ³ | General population [Consumers] | Systemic |
| DNEL | | Short term Oral | 13.4 mg/kg bw/day | Workers | Systemic |
| DNEL | | Short term | 123 mg/m ³ | General | Local |
| DNEL | | Short term | 123 mg/m ³ | General | Local |

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SECTION 8: Exposure controls/personal protection

| | | | | | | |
|-------------|---------------------|-----------------------|------------------------|--------------------------------|--------------------|----------|
| propan-2-ol | | Inhalation | | population [Consumers] | | |
| | DNEL | Long term Dermal | 38 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Inhalation | 49 mg/m ³ | General population [Consumers] | Systemic | |
| | DNEL | Long term Oral | 3.2 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Oral | 6.3 mg/kg bw/day | General population | Systemic | |
| | DNEL | Short term Oral | 26.7 mg/kg bw/day | General population | Systemic | |
| | DNEL | Long term Inhalation | 59 mg/m ³ | General population | Systemic | |
| | DNEL | Long term Inhalation | 98 mg/m ³ | General population Workers | Systemic | |
| | DNEL | Short term Inhalation | 147 mg/m ³ | General population | Local | |
| | DNEL | Short term Inhalation | 246 mg/m ³ | Workers | Local | |
| | DNEL | Short term Inhalation | 426 mg/m ³ | General population | Systemic | |
| | DNEL | Short term Inhalation | 1091 mg/m ³ | Workers | Systemic | |
| | DNEL | Long term Dermal | 888 mg/kg bw/day | Workers | Systemic | |
| | DNEL | Long term Inhalation | 500 mg/m ³ | Workers | Systemic | |
| | DNEL | Long term Dermal | 319 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Inhalation | 89 mg/m ³ | Workers | Systemic | |
| | DNEL | Long term Oral | 26 mg/kg bw/day | General population [Consumers] | Systemic | |
| | DNEL | Long term Inhalation | 500 mg/m ³ | Workers | Systemic | |
| | tetraethyl silicate | DNEL | Long term Dermal | 888 mg/kg bw/day | Workers | Systemic |
| | | DNEL | Long term Oral | 26 mg/kg bw/day | General population | Systemic |
| DNEL | | Short term Oral | 51 mg/kg bw/day | General population | Systemic | |
| DNEL | | Long term Inhalation | 89 mg/m ³ | General population | Systemic | |
| DNEL | | Short term Inhalation | 178 mg/m ³ | General population | Systemic | |
| DNEL | | Long term Dermal | 319 mg/kg bw/day | General population | Systemic | |
| DNEL | | Short term Inhalation | 1000 mg/m ³ | Workers | Systemic | |
| DNEL | | Short term Dermal | 12.1 mg/kg bw/day | Workers | Systemic | |
| DNEL | | Short term Inhalation | 85 mg/m ³ | Workers | Systemic | |
| DNEL | | Short term Inhalation | 85 mg/m ³ | Workers | Local | |
| DNEL | Long term Dermal | 12.1 mg/kg bw/day | Workers | Systemic | | |
| DNEL | Long term | 85 mg/m ³ | Workers | Systemic | | |

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SECTION 8: Exposure controls/personal protection

| | | | | | |
|--------|------|---------------------------------|------------------------|--------------------------------------|----------|
| xylene | DNEL | Inhalation Long term | 85 mg/m ³ | Workers | Local |
| | DNEL | Inhalation Short term Dermal | 8.4 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Inhalation Short term | 25 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Inhalation Short term | 25 mg/m ³ | General population [Consumers] | Local |
| | DNEL | Dermal Long term | 8.4 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Inhalation Long term | 25 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Inhalation Long term | 25 mg/m ³ | General population [Consumers] | Local |
| | DNEL | Dermal Long term | 1.8 mg/kg bw/day | General population | Systemic |
| | DNEL | Inhalation Short term | 5.3 mg/m ³ | General population | Local |
| | DNEL | Inhalation Long term | 5.3 mg/m ³ | General population | Local |
| | DNEL | Inhalation Short term | 5.3 mg/m ³ | General population | Systemic |
| | DNEL | Inhalation Long term | 5.3 mg/m ³ | General population | Systemic |
| | DNEL | Dermal Long term | 6.3 mg/kg bw/day | Workers | Systemic |
| | DNEL | Inhalation Short term | 44 mg/m ³ | Workers | Local |
| | DNEL | Inhalation Long term | 44 mg/m ³ | Workers | Local |
| | DNEL | Inhalation Short term | 44 mg/m ³ | Workers | Systemic |
| | DNEL | Inhalation Long term | 44 mg/m ³ | Workers | Systemic |
| | DNEL | Oral Long term | 5 mg/kg bw/day | General population | Systemic |
| | DNEL | Inhalation Long term | 65.3 mg/m ³ | General population | Local |
| | DNEL | Inhalation Long term | 65.3 mg/m ³ | General population | Systemic |
| | DNEL | Dermal Long term | 125 mg/kg bw/day | General population | Systemic |
| | DNEL | Dermal Long term | 212 mg/kg bw/day | Workers | Systemic |
| | DNEL | Inhalation Long term | 221 mg/m ³ | Workers | Local |
| | DNEL | Inhalation Long term | 221 mg/m ³ | Workers | Systemic |
| | DNEL | Inhalation Short term | 260 mg/m ³ | General population | Local |
| | DNEL | Inhalation Short term | 260 mg/m ³ | General population | Systemic |
| | DNEL | Inhalation Short term | 442 mg/m ³ | Workers | Local |
| | DNEL | Inhalation Short term | 442 mg/m ³ | Workers | Systemic |

PNECs

SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|-----------------|---------------|
| 1-methoxy-2-propanol | Fresh water | 10 mg/l | - |
| | Marine | 1 mg/l | - |
| | Sewage Treatment Plant | 100 mg/l | - |
| | Fresh water sediment | 52.3 mg/kg dwt | - |
| | Marine water sediment | 5.2 mg/kg dwt | - |
| | Soil | 5.49 mg/kg dwt | - |
| 2-butoxyethanol | Fresh water | 8.8 mg/l | - |
| | Marine | 0.88 mg/l | - |
| | Sewage Treatment Plant | 463 mg/l | - |
| | Fresh water sediment | 34.6 mg/kg dwt | - |
| | Marine water sediment | 3.46 mg/kg dwt | - |
| | Soil | 3.13 mg/kg dwt | - |
| propan-2-ol | Secondary Poisoning | 20 mg/kg | - |
| | Fresh water | 140.9 mg/l | - |
| | Marine | 140.9 mg/l | - |
| | Sewage Treatment Plant | 2251 mg/l | - |
| | Fresh water sediment | 552 mg/kg dwt | - |
| | Marine water sediment | 552 mg/kg dwt | - |
| tetraethyl silicate | Soil | 28 mg/kg dwt | - |
| | Secondary Poisoning | 160 mg/kg | - |
| | Fresh water | 0.19 mg/l | - |
| | Marine | 0.019 mg/l | - |
| | Sewage Treatment Plant | 4000 mg/l | - |
| | Fresh water sediment | 0.83 mg/kg dwt | - |
| xylene | Marine water sediment | 0.083 mg/kg dwt | - |
| | Soil | 0.05 mg/kg dwt | - |
| | Fresh water | 0.327 mg/l | - |
| | Marine | 0.327 mg/l | - |
| | Sewage Treatment Plant | 6.58 mg/l | - |
| | Fresh water sediment | 12.46 mg/kg dwt | - |
| | Marine water sediment | 12.46 mg/kg dwt | - |
| | Soil | 2.31 mg/kg dwt | - |

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 to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

SECTION 8: Exposure controls/personal protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm), Teflon (> 0.35 mm)

Not recommended, gloves(breakthrough time) < 1 hour: PVC (> 0.5 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.


- Body protection** : Use chemical-resistant protective suit / disposable overall.
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.
- 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** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387 (as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoal filter.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

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** : Grey
- Odour** : Characteristic.
- Odour threshold** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Initial boiling point and boiling range** : >36°C (>96.8°F)
- Flammability** : Not applicable.
- Upper/lower flammability or explosive limits** :  Greatest known range: Lower: 1.3% Upper: 23% (tetraethyl silicate)
- Flash point** : Closed cup: 16°C (60.8°F)
- Auto-ignition temperature** : Lowest known value: 222°C (431.6°F) (tetraethyl silicate).

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SECTION 9: Physical and chemical properties

- Decomposition temperature** : Not available.
pH : Not applicable.
Viscosity : Kinematic (40°C): >20.5 mm²/s
Solubility(ies) :

| Media | Result |
|------------|-------------|
| cold water | Not soluble |
| hot water | Not soluble |

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

Vapour pressure : Highest known value: 5.7 kPa (42.9 mm Hg) (at 20°C) (ethanol). Weighted average: 2.54 kPa (19.05 mm Hg) (at 20°C)

Evaporation rate : Highest known value: 1.7 (ethanol) Weighted average: 1.05 compared with butyl acetate

Density : 1.085 g/cm³

Vapour density : Highest known value: 7.22 (Air = 1) (tetraethyl silicate). Weighted average: 2.91 (Air = 1)

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

No additional information.

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 : Stable under recommended storage and handling conditions (see Section 7).

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

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-------------------------|---------------------------|--------------------------|----------|
| 1-methoxy-2-propanol | LD50 Dermal | Rabbit | 13 g/kg | - |
| | LD50 Oral | Rat | 6600 mg/kg | - |
| ethanol | LC50 Inhalation Vapour | Rat | 124700 mg/m ³ | 4 hours |
| 2-butoxyethanol | LD50 Oral | Guinea pig - Male, Female | 1414 mg/kg | - |
| | LD50 Oral | Rat - Male, Female | 1300 mg/kg | - |
| propan-2-ol | LD50 Dermal | Rabbit | 12800 mg/kg | - |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| xylene | LC50 Inhalation Vapour | Rat | 11 mg/l | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| | TDL _o Dermal | Rabbit | 4300 mg/kg | - |

Acute toxicity estimates

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SECTION 11: Toxicological information

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Tankguard Zinc Comp A | 17142.9 | 73333.3 | N/A | 36.2 | N/A |
| 1-methoxy-2-propanol | 6600 | 13000 | N/A | N/A | N/A |
| ethanol | 7000 | N/A | N/A | 124.7 | N/A |
| 2-butoxyethanol | 1200 | N/A | N/A | 3 | N/A |
| propan-2-ol | 5000 | 12800 | N/A | N/A | N/A |
| tetraethyl silicate | N/A | N/A | N/A | 11 | N/A |
| xylene | 4300 | 1100 | N/A | 11 | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|--------------------------|------------------------------|-------|-------------------------|-------------|
| 1-methoxy-2-propanol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| ethanol | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 100 microliters | - |
| 2-butoxyethanol | Skin - Mild irritant | Rabbit | - | 400 milligrams | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| propan-2-ol | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| tetraethyl silicate | Eyes - Mild irritant | Mammal - species unspecified | - | - | - |
| xylene | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |

Sensitisation

Based on available data, the classification criteria are not met.

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------------------|
| 1-methoxy-2-propanol | Category 3 | - | Narcotic effects |
| propan-2-ol | Category 3 | - | Narcotic effects |
| tetraethyl silicate | Category 3 | - | Respiratory tract irritation |
| xylene | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

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SECTION 11: Toxicological information**Aspiration hazard**

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| xylene | ASPIRATION HAZARD - Category 1 |

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
Inhalation : May cause drowsiness or dizziness.
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** : Adverse symptoms may include the following:
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
- Skin contact** : No specific data.
Ingestion : No specific data.
General : No known significant effects or critical hazards.
- Other information** : None identified.

SECTION 12: Ecological information**12.1 Toxicity**

There are no data available on the mixture itself.
 Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment, but contains substance(s) hazardous to the environment. See section 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|-----------------------------------|---|----------|
| 2-butoxyethanol | Acute EC50 1000 mg/l Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| | Acute LC50 1000 mg/l Marine water | Crustaceans - Amphipod - Chaetogammarus marinus - Young | 48 hours |
| propan-2-ol | Acute EC50 10100 mg/l Fresh water | Daphnia - Water flea - Daphnia magna | 48 hours |
| | Acute LC50 4200 mg/l Fresh water | Fish - Harlequinfish, red rasbora - Rasbora heteromorpha | 96 hours |
| xylene | Acute LC50 8500 µg/l Marine water | Crustaceans - Daggerblade grass shrimp - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - Fathead minnow - Pimephales promelas | 96 hours |

Conclusion/Summary : No known significant effects or critical hazards.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| xylene | - | - | Readily |

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SECTION 12: Ecological information**12.3 Bioaccumulative potential**

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| 1-methoxy-2-propanol | <1 | - | low |
| ethanol | -0.35 | - | low |
| 2-butoxyethanol | 0.81 | - | low |
| propan-2-ol | 0.05 | - | low |
| tetraethyl silicate | 3.18 | - | low |
| xylene | 3.12 | 8.1 to 25.9 | low |

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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).

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 : Yes.

Waste catalogue

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | Waste paint and varnish containing organic solvents or other dangerous substances |

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.

| Type of packaging | Waste catalogue |
|-------------------|--|
| CEPE Guidelines | 15 01 10* packaging containing residues of or contaminated by hazardous substances |

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.

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SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|--|--|---|--|
| 14.1 UN 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. | No. | No. | No. |

Additional information

ADR/RID : **Hazard identification number** 33
Special provisions 640 (C)
Tunnel code (D/E)

ADN : **Special provisions** 640 (C)

IMDG : **Emergency schedules** F-E, S-E

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 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK (GB)/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.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

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SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c

EU regulations

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

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

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
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = GB 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

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SECTION 16: Other information

| Classification | Justification |
|---|---|
| Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 | On basis of test data Calculation method Calculation method |

Full text of abbreviated H statements

| | |
|------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of classifications

| | |
|-------------------|---|
| Acute Tox. 3 | ACUTE TOXICITY - Category 3 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Asp. Tox. 1 | ASPIRATION HAZARD - 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 |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

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