

SAFETY DATA SHEET



Rust Protection 2000 PLUS charcoal-grey

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

1.1 Product identifier

Product name : Rust Protection 2000 PLUS charcoal-grey
UFI : PS61-V0FQ-J00X-VND3
Product code : 110120
Color : Gray. [Dark]
Product description : Aerosol product
Product type : Aerosol.
Other means of identification : Not available.

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

Identified uses

Aerosol product

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

WEICON GmbH & Co. KG
Königsberger Str. 255,
48157 Münster, Germany
phone:+49 251 93220,
email: info@weicon.de,
URL: www.weicon.de

e-mail address of person responsible for this SDS : msds@weicon.de

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)
TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44 1865 407333 (English)

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]

Aerosol 1, H222, H229
STOT SE 3, H336
Aquatic Chronic 3, H412

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

SECTION 2: Hazards identification

Hazard pictograms



Signal word

: Danger

Hazard statements

: H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if heated.
H336 - May cause drowsiness or dizziness.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General

: P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.

Prevention

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P261 - Avoid breathing dust or mist.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.

Response

: P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Storage

: P405 - Store locked up.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal

: P501 - Dispose of waste according to applicable legislation.

Hazardous ingredients

: acetone; n-butyl acetate; Hydrocarbons, C9 aromatics and Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Supplemental label elements

: Contains epoxy constituents. May produce an allergic reaction.
Contains reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700). May produce an allergic reaction.

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.

Aspiration hazard - Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥25 - ≤50	Flam. Liq. 2, H225	-	[1] [2]
butane	REACH #: 01-2119474691-32 EC: 203-448-7 CAS: 106-97-8 Index: 601-004-00-0	≥10 - ≤25	Flam. Gas 1A, H220 Press. Gas (Comp.), H280	-	[1] [2]
propane	REACH #: 01-2119486944-21 EC: 200-827-9 CAS: 74-98-6 Index: 601-003-00-5	≥10 - ≤25	Flam. Gas 1A, H220 Press. Gas (Comp.), H280	-	[1] [2]
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≥5 - <10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≥3 - ≤5	Flam. Liq. 3, H226	-	[1] [2]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥3 - <5	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Hydrocarbons, C9 aromatics	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: -	≥3 - ≤5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
2-butoxyethyl acetate	REACH #: 01-2119475112-47 EC: 203-933-3 CAS: 112-07-2 Index: 607-038-00-2	≥3 - ≤5	Acute Tox. 4, H312 Acute Tox. 4, H332	ATE [Dermal] = 1500 mg/kg ATE [Inhalation (vapours)] = 11 mg/ l	[1] [2]
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	REACH #: 01-2119463258-33 EC: 919-857-5 CAS: 64742-48-9	≥3 - <5	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	-	[1]
zinc oxide	REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	≥0.3 - ≤1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2]

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SECTION 3: Composition/information on ingredients

reaction product: bisphenol-A-(epichlorohydrin); epoxy resin	REACH #: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	≥0.3 - <1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above.	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
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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 physical, 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 if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
redness

SECTION 4: First aid measures

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

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Extremely flammable aerosol. 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. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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

SECTION 6: Accidental release measures

- 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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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 spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
- 6.3 Methods and materials 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 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 spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Empty containers retain product residue and can be hazardous.
- 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

SECTION 7: Handling and storage

Store in accordance with local regulations. Store away 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. 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
P3a	150 tonnes	500 tonnes

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
ethanol	<p>DFG MAC-values list (Germany, 7/2024) Carc 5, Muta 5, Develop C. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³ 4 times per shift [Interval: 1 hour].</p> <p>TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 380 mg/m³. PEAK 15 minutes: 1520 mg/m³. TWA 8 hours: 200 ppm. PEAK 15 minutes: 800 ppm.</p>
butane	<p>DFG MAC-values list (Germany, 7/2024) [Butane] Develop D. TWA 8 hours: 1000 ppm. PEAK 15 minutes: 4000 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 2400 mg/m³. PEAK 15 minutes: 9600 mg/m³ 4 times per shift [Interval: 1 hour].</p> <p>TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 2400 mg/m³. PEAK 15 minutes: 9600 mg/m³. TWA 8 hours: 1000 ppm. PEAK 15 minutes: 4000 ppm.</p>
propane	<p>DFG MAC-values list (Germany, 7/2024) Develop D. TWA 8 hours: 1000 ppm. PEAK 15 minutes: 4000 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 1800 mg/m³. PEAK 15 minutes: 7200 mg/m³ 4 times per shift [Interval: 1 hour].</p> <p>TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 1800 mg/m³. PEAK 15 minutes: 7200 mg/m³. TWA 8 hours: 1000 ppm. PEAK 15 minutes: 4000 ppm.</p>
acetone	<p>DFG MAC-values list (Germany, 7/2024) Develop B. TWA 8 hours: 500 ppm. PEAK 15 minutes: 1000 ppm 4 times per shift [Interval: 1 hour].</p>

SECTION 8: Exposure controls/personal protection

	<p>TWA 8 hours: 1200 mg/m³. PEAK 15 minutes: 2400 mg/m³ 4 times per shift [Interval: 1 hour]. TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 1200 mg/m³. PEAK 15 minutes: 2400 mg/m³. TWA 8 hours: 500 ppm. PEAK 15 minutes: 1000 ppm. EU OEL (Europe, 1/2022) TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.</p>
2-methoxy-1-methylethyl acetate	<p>DFG MAC-values list (Germany, 7/2024) Develop C. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 270 mg/m³. PEAK 15 minutes: 270 mg/m³ 4 times per shift [Interval: 1 hour]. TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 270 mg/m³. PEAK 15 minutes: 270 mg/m³. TWA 8 hours: 50 ppm. PEAK 15 minutes: 50 ppm. EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 50 ppm. TWA 8 hours: 275 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 550 mg/m³.</p>
n-butyl acetate	<p>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]. TRGS 900 OEL (Germany, 3/2025) TWA 8 hours: 300 mg/m³. TWA 8 hours: 62 ppm. PEAK 15 minutes: 600 mg/m³. PEAK 15 minutes: 124 ppm. 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.</p>
2-butoxyethyl acetate	<p>DFG MAC-values list (Germany, 7/2024) Develop C. Absorbed through skin. TWA 8 hours: 10 ppm. PEAK 15 minutes: 20 ppm 4 times per shift [Interval: 1 hour]. TWA 8 hours: 66 mg/m³. PEAK 15 minutes: 132 mg/m³ 4 times per shift [Interval: 1 hour]. TRGS 900 OEL (Germany, 3/2025) Absorbed through skin. TWA 8 hours: 65 mg/m³. PEAK 15 minutes: 130 mg/m³. TWA 8 hours: 10 ppm. PEAK 15 minutes: 20 ppm. EU OEL (Europe, 1/2022) Absorbed through skin. TWA 8 hours: 20 ppm. TWA 8 hours: 133 mg/m³. STEL 15 minutes: 50 ppm. STEL 15 minutes: 333 mg/m³.</p>
zinc oxide	<p>DFG MAC-values list (Germany, 7/2024) [Zinc and its inorganic compounds] Develop C. PEAK 15 minutes: 0.4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: respirable fraction.</p>

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SECTION 8: Exposure controls/personal protection

TWA 8 hours: 2 mg/m³. Form: inhalable fraction.
 TWA 8 hours: 0.1 mg/m³. Form: respirable fraction.
 PEAK 15 minutes: 4 mg/m³ 4 times per shift [Interval: 1 hour].
 Form: inhalable fraction.

Biological exposure indices

Product/ingredient name	Exposure indices
acetone	<p>DFG BEI-values list (Germany, 7/2024) BEI: 50 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift.</p> <p>TRGS 903 - BEI Values (Germany, 10/2024) BEI: 50 mg/l, acetone [in urine]. Sampling time: end of exposure or end of shift.</p>
2-butoxyethyl acetate	<p>DFG BEI-values list (Germany, 7/2024) Notes: danger from percutaneous absorption (see p. 211 and p. 228). BEI: 150 mg/g creatinine, butoxyacetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposures after several previous shifts.</p> <p>TRGS 903 - BEI Values (Germany, 10/2024) BEI: 150 mg/g, butoxy acetic acid (after hydrolysis) [in urine]. Sampling time: at the end of the shift, for long-term exposure after several previous shifts.</p>

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

ethanol

Result

DNEL - General population - Long term - Oral

87 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Inhalation

114 mg/m³

Effects: Systemic

DNEL - General population - Long term - Dermal

206 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

343 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

380 mg/m³

Effects: Systemic

DNEL - General population - Short term - Inhalation

950 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

SECTION 8: Exposure controls/personal protection

	1900 mg/m ³ <u>Effects:</u> Local
acetone	DNEL - General population - Long term - Oral 62 mg/kg bw/day <u>Effects:</u> Systemic DNEL - General population - Long term - Dermal 62 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Long term - Dermal 186 mg/kg bw/day <u>Effects:</u> Systemic DNEL - General population - Long term - Inhalation 200 mg/m ³ <u>Effects:</u> Systemic DNEL - Workers - Long term - Inhalation 1210 mg/m ³ <u>Effects:</u> Systemic DNEL - Workers - Short term - Inhalation 2420 mg/m ³ <u>Effects:</u> Local
2-methoxy-1-methylethyl acetate	DNEL - General population - Long term - Inhalation 33 mg/m ³ <u>Effects:</u> Local DNEL - General population - Long term - Inhalation 33 mg/m ³ <u>Effects:</u> Systemic DNEL - General population - Long term - Oral 36 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Long term - Inhalation 275 mg/m ³ <u>Effects:</u> Systemic DNEL - General population - Long term - Dermal 320 mg/kg bw/day <u>Effects:</u> Systemic DNEL - Workers - Short term - Inhalation 550 mg/m ³ <u>Effects:</u> Local DNEL - Workers - Long term - Dermal 796 mg/kg bw/day <u>Effects:</u> Systemic
n-butyl acetate	DNEL - General population - Long term - Oral 2 mg/kg bw/day <u>Effects:</u> Systemic DNEL - General population - Short term - Oral 2 mg/kg bw/day <u>Effects:</u> Systemic

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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

2-butoxyethyl acetate

DNEL - General population - Long term - Oral
8.6 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Oral
36 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Dermal
72 mg/kg bw/day
Effects: Systemic

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

SECTION 8: Exposure controls/personal protection

DNEL - General population - Long term - Dermal

102 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Dermal

120 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Inhalation

133 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Dermal

169 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Inhalation

200 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

333 mg/m³

Effects: Local

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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

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

Eye/face protection

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

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended : 1 - 4 hours (breakthrough time): Protective gloves made of nitrile rubber (material thickness of 0,4 mm); EN 374-5 Cat. III 4 - 8 hours (breakthrough time): Protective gloves made of Viton®/ butyl rubber (material thickness of 0,7 mm); EN388 Cat.II / EN374 Cat.III / EN374-2

SECTION 8: Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : organic vapor (Type AX) and particulate filter
- 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** : Gas.
- Color** : Gray. [Dark]
- Odor** : Benzene-like.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not applicable.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flammability** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
- Lower and upper explosion limit** : Lower: 1.3%
Upper: 15%
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): Not available.
- Solubility** :
Not available.
- Solubility in water** : Not available.
- Partition coefficient n-octanol/water (log Pow)** : Not applicable.
- Vapor pressure** : 420 kPa (3150.3 mm Hg)
- Relative density** : Not applicable.
- Density** : 0.72 g/cm³ [20°C (68°F)]
- Relative vapor density** : Not available.
- Particle characteristics**

SECTION 9: Physical and chemical properties

Median particle size : Not applicable.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Fire point : >200°C

Heat of combustion : 21.94 kJ/g

Explosive properties : Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Oxidizing properties : Not available.

Aerosol product

Type of aerosol : Spray

9.2.2 Other safety characteristics

Miscible with water : No.

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).

10.5 Incompatible materials : No specific data.

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

Reactive or incompatible with the following materials: oxidizing materials.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name

ethanol

Result

Rat - Oral - LD50

7 g/kg

Rat - Inhalation - LC50 Vapor

124700 mg/m³ [4 hours]

butane

Rat - Inhalation - LC50 Vapor

658000 mg/m³ [4 hours]

acetone

Rat - Oral - LD50

5800 mg/kg

Toxic effects: Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor

2-methoxy-1-methylethyl acetate

Rat - Oral - LD50

8532 mg/kg

Rabbit - Dermal - LD50

>5 g/kg

SECTION 11: Toxicological information

n-butyl acetate

Rat - Oral - LD50

10768 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes

Rabbit - Dermal - LD50

>17600 mg/kg

Rat - Male, Female - Inhalation - LC50 Vapor

>21 mg/l [4 hours]

OECD 403

2-butoxyethyl acetate

Rat - Oral - LD50

2400 mg/kg

Toxic effects: Kidney, Ureter, and Bladder - Hematuria Kidney, Ureter, and Bladder - Other changes in urine composition

Rabbit - Dermal - LD50

1500 mg/kg

Toxic effects: Kidney, Ureter, and Bladder - Hematuria Kidney, Ureter, and Bladder - Other changes in urine composition
Blood - Normocytic anemia

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Rust Protection 2000 PLUS silver-grey	N/A	33015.2	N/A	242.1	N/A
ethanol	7000	N/A	N/A	124.7	N/A
butane	N/A	N/A	N/A	658	N/A
acetone	5800	N/A	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
2-butoxyethyl acetate	2400	1500	N/A	11	N/A

Skin corrosion/irritation

Product/ingredient name

acetone

Result

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Skin - Mild irritant

Amount/concentration applied: 395 mg

2-butoxyethyl acetate

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

zinc oxide

Rabbit - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

SECTION 11: Toxicological information

ethanol

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 1 hours

Amount/concentration applied: 50 pph

acetone

Human - Eyes - Mild irritant

Amount/concentration applied: 186300 ppm

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 10 uL

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 20 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

SECTION 11: Toxicological information

acetone	STOT SE 3, H336 (Narcotic effects)
n-butyl acetate	STOT SE 3, H336 (Narcotic effects)
Hydrocarbons, C9 aromatics	STOT SE 3, H335 (Respiratory tract irritation)
	STOT SE 3, H336 (Narcotic effects)
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
Hydrocarbons, C9 aromatics	ASPIRATION HAZARD - Category 1
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

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

Delayed and immediate effects and also 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.

SECTION 11: Toxicological information

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

ethanol

Result

Acute - LC50 - Marine water

Crustaceans - San Francisco Brine Shrimp - *Artemia franciscana* - Larvae

25.5 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Marine water

Fish - Bleak - *Alburnus alburnus*

Size: 8 to 10 cm

11 g/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate

5577 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate

3715 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate

6076 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: <12 hours

9248 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: <24 hours

5680 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Size: 25 to 40 mm

1.272 pph [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

SECTION 12: Ecological information

17.921 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*

4.995 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Fresh water

Algae - Dinoflagellate - *Prorocentrum minimum*

20 ppm [96 hours]

Effect: Population

Chronic - NOEC - Fresh water

Algae - Euglenoid - *Eutreptiella sp.*

14 ppm [96 hours]

Effect: Population

Chronic - NOEC - Fresh water

Algae - Algae - *Heterosigma akashiwo*

350 ppm [96 hours]

Effect: Population

Acute - EC50 - Fresh water

Crustaceans - Ostracod - *Cypris subglobosa*

1074 mg/l [48 hours]

Effect: Intoxication

Acute - EC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 30 days

12.9 g/l [96 hours]

Effect: Behavior

Chronic - NOEC - Marine water

Algae - Neptune's Necklace - *Hormosira banksii* - Gamete

50 µl/l [72 hours]

Effect: Histology

Acute - EC50 - Fresh water

OECD

Daphnia - Water flea - *Daphnia magna*

Age: 8 to 24 hours

7640 mg/l [48 hours]

Effect: Intoxication

Acute - EC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 22 mm; Weight: 0.14 g

12.8 g/l [96 hours]

Effect: Behavior

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

Size: 9.4 mm

3306 mg/l [96 hours]

Effect: Reproduction

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

42 mg/l [4 days]

Effect: Mortality

SECTION 12: Ecological information

Chronic - NOEC - Fresh water

Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae

Age: 3 days

0.375 µl/l [12 weeks]

Effect: Morphology

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna* - Neonate

Age: <24 hours

100 µl/l [21 days]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

2 mg/l [48 hours]

Effect: Intoxication

acetone

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia magna*

10 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia pulex*

Age: <24 hours

8800 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia cucullata*

Age: 11 days

7460 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Daphnia - Water flea - *Daphnia cucullata*

Age: 11 days

7810 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Aquatic sowbug - *Asellus aquaticus*

7550 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Scud - *Gammarus pulex*

6000 mg/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 28 days; Size: 19.2 mm; Weight: 0.076 g

7280 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 33 days; Size: 22.6 mm; Weight: 0.159 g

8120 mg/l [96 hours]

Effect: Mortality

SECTION 12: Ecological information

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 32 days; Size: 18 mm; Weight: 0.087 g

6210 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate

Age: <12 hours

8098 mg/l [48 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Selenastrum sp.*

7200 mg/l [96 hours]

Effect: Population

Chronic - NOEC - Marine water

Algae - Green algae - *Ulva pertusa*

4.95 mg/l [96 hours]

Effect: Reproduction

Acute - EC50 - Marine water

Algae - Green algae - *Ulva pertusa*

20.565 mg/l [96 hours]

Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Diatom - *Skeletonema costatum*

100 µl/l [72 hours]

Effect: Population

Chronic - NOEC - Marine water

Algae - Diatom - *Skeletonema costatum*

100 µl/l [96 hours]

Effect: Population

Chronic - NOEC - Marine water

Algae - Dinoflagellate - *Karenia brevis*

0.5 ml/l [96 hours]

Effect: Population

Acute - LC50 - Marine water

ISO

Crustaceans - Calanoid copepod - *Acartia tonsa* - Copepodid

4.42589 ml/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Crustaceans - Scud - *Gammarus pulex* - Juvenile (Fledgling, Hatchling, Weanling)

Size: 5 to 10 mm

11.26487 ml/l [48 hours]

Effect: Mortality

Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

Age: 4 to 12 months; Size: 2 to 10 cm; Weight: 0.5 to 14 g

8000 ppm [96 hours]

Effect: Mortality

Acute - LC50 - Fresh water

SECTION 12: Ecological information

Fish - Guppy - *Poecilia reticulata*
Age: 4 to 12 months; Size: 2 to 10 cm; Weight: 0.5 to 14 g
5600 ppm [96 hours]
Effect: Mortality

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

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

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
18 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Fresh water
Fish - Zebra danio - *Danio rerio*
62 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Marine water
Crustaceans - Brine shrimp - *Artemia salina*
32 mg/l [48 hours]
Effect: Mortality

zinc oxide

Acute - LC50 - Fresh water
Daphnia - Water flea - *Daphnia magna* - Neonate
Age: <24 hours
98 µg/l [48 hours]
Effect: Mortality

Acute - LC50 - Fresh water
US EPA
Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*
Weight: 0.78 g
1.1 ppm [96 hours]
Effect: Mortality

Acute - IC50 - Fresh water
Algae - Green algae - *Raphidocelis subcapitata* - Exponential
growth phase
46 µg/l [72 hours]
Effect: Population

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
ethanol	-0.35	-	Low
butane	1.09	-	Low
propane	1.09	-	Low
acetone	-0.23	-	Low
2-methoxy-1-methylethyl acetate	1.2	-	Low
n-butyl acetate	2.3	-	Low
2-butoxyethyl acetate	1.51	-	Low
zinc oxide	-	28960	High
reaction product: bisphenol-A-(epichlorohydrin); epoxy resin	2.64 to 3.78	31	Low

12.4 Mobility in soil

Soil/Water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
ethanol	0.2	1.59008
butane	1.4	22.8012
propane	0.94	8.6207
acetone	0.56	3.6548
2-methoxy-1-methylethyl acetate	0.36	2.31363
n-butyl acetate	1.5	33.2139
2-butoxyethyl acetate	2.1	112.842

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
ethanol	No	No	No	No	No	No	No
butane	No	No	No	No	No	No	No
propane	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
2-methoxy-1-methylethyl acetate	No	No	No	No	No	No	No
n-butyl acetate	No	No	No	No	No	No	No
Hydrocarbons, C9 aromatics	No	No	No	No	No	No	No
2-butoxyethyl acetate	No	No	No	No	No	No	No
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	No	No	No	No	No	No	No
zinc oxide	No	No	No	No	No	No	No
reaction product: bisphenol-A-(epichlorohydrin); epoxy resin	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
ethanol	No	N/A	N/A	No	N/A	N/A	N/A
butane	No	N/A	N/A	No	N/A	N/A	N/A
propane	No	N/A	N/A	No	N/A	N/A	N/A
acetone	N/A	N/A	N/A	Yes	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	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
Hydrocarbons, C9 aromatics	No	N/A	N/A	No	N/A	N/A	N/A

Rust Protection 2000 PLUS charcoal-grey

SECTION 12: Ecological information

2-butoxyethyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	No	N/A	N/A	No	N/A	N/A	N/A
zinc oxide	No	No	No	No	No	No	No
reaction product: bisphenol-A-(epichlorohydrin); epoxy resin	No	N/A	No	No	No	N/A	No

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
ethanol	No	No	No	No	No	No	No
butane	No	No	No	No	No	No	No
propane	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
2-methoxy-1-methylethyl acetate	No	No	No	No	No	No	No
n-butyl acetate	No	No	No	No	No	No	No
Hydrocarbons, C9 aromatics	No	No	No	No	No	No	No
2-butoxyethyl acetate	No	No	No	No	No	No	No
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	No	No	No	No	No	No	No
zinc oxide	No	No	No	No	No	No	No
reaction product: bisphenol-A-(epichlorohydrin); epoxy resin	No	No	No	No	No	No	No

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

12.6 Endocrine disrupting properties

Not available.

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

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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 minimized 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.

European waste catalogue (EWC)

SECTION 13: Disposal considerations

Waste code	Waste designation
16 05 04*	gases in pressure containers (including halons) containing hazardous substances

Packaging

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

Type of packaging	European waste catalogue (EWC)
Can	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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1950	UN1950	UN1950	UN1950
14.2 UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	Aerosols, flammable
14.3 Transport hazard class(es)	2 	2 	2.1 	2.1 
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

Additional information

ADR/RID : **Limited quantity** 1 L
Special provisions 190, 327, 625, 344
Tunnel code (D)
ADR Classification Code: 5F

ADN : **Special provisions** 190, 327, 625, 344

IMDG : **Emergency schedules** F-D, S-U
Special provisions 63, 190, 277, 327, 344, 381, 959

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
Special provisions A145, A167, A802

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 available.

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 authorization

Annex XIV

None of the components are listed above the relevant limit.

Substances of very high concern

None of the components are listed above the relevant limit.

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

Product/ingredient name	%	Designation [Usage]
propane	≥10 - ≤25	40

Labeling : Not applicable.

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : Not applicable.

Total percentage of synthetic polymer microparticles : Not applicable.

Other EU regulations

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

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

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

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Aerosol dispensers :

3



Extremely flammable

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Rust Protection 2000 PLUS charcoal-grey

SECTION 15: Regulatory information

Category

P3a

VOC content : 86,92 %

VOC (g/L) : 634,4

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
ethanol	DFG MAC-values list	-	Carc 5, Muta 5, Develop C	-
butane	DFG MAC-values list	Butane	Develop D	-
propane	DFG MAC-values list	-	Develop D	-
acetone	DFG MAC-values list	-	Develop B	-
2-methoxy-1-methylethyl acetate	DFG MAC-values list	-	Develop C	-
n-butyl acetate	DFG MAC-values list	-	Develop C	-
2-butoxyethyl acetate	DFG MAC-values list	-	Develop C	-
zinc oxide	DFG MAC-values list	Zinc and its inorganic compounds	Develop C	-

Storage class (TRGS 510) : 2B

Hazardous incident ordinance

This product is controlled under the Germany Hazardous Incident Ordinance.

Danger criteria

Category	Reference number
P3a	1.2.3.1

Hazard class for water : 2

Technical instruction on air quality control (TA Luft)

Number [Class]	Description	%
5.2.5	Organic substances	108
5.2.5 [I]	Organic substances	97.2
5.2.10	Soil polluting substances	0.9

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

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.

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Eurasian Economic Union : Russian Federation inventory: Not determined.

SECTION 15: Regulatory information

Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

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	: ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate B = Bioaccumulative BCF = Bioconcentration Factor 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 IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods IMO = International Maritime Organization M = Mobile N/A = Not available P = Persistent PBT = Persistent, Bioaccumulative and Toxic PMT = Persistent, Mobile and Toxic PNEC = Predicted No Effect Concentration RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number SGG = Segregation Group T = Toxic vB = Very Bioaccumulative vM = Very Mobile vP = Very Persistent vPvB = Very Persistent and Very Bioaccumulative vPvM = Very Persistent and Very Mobile
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aerosol 1, H222, H229 STOT SE 3, H336 Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

H220	Extremely flammable gas.
H222, H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aerosol 1	AEROSOLS - Category 1
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Gas 1A	FLAMMABLE GASES - Category 1A
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Press. Gas (Comp.)	GASES UNDER PRESSURE - Compressed gas
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.