


Top Coat

Date of compilation: 04/01/2023 Revised: 05/10/2023 Version: 2 (Replaced 1)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** Ceramic Top Coat
- Other means of identification:**
- UFI:** FCR3-M0S8-100H-441F
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- Relevant uses: Vehicle Underseal; water repeller. For professional users/industrial user only.
- Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
- GARDX INTERNATIONAL LTD
LAKE HOUSE, 2 PORT WAY, PORT SOLENT,
PO6 4TY PORTSMOUTH - UNITED KINGDOM
Phone: +44 (0)1243 376426
product@gardx.co.uk
www.gardx.co.uk
- AUTOMOTOSOL S.R.O
RYBNÁ 716/24
PRAHA 1
110 00
CZECH REPUBLIC
- +420 222 703288
- 1.4 Emergency telephone number:** CNN: 1012486. For 24/7 multilingual advice for spill, leak, fire, exposure, or accident call chemtrec @ +44 2038850382. Emergency medical information: (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Members of the public Number (8am-10pm): +353 (0)1 809 2166. Healthcare professional telephone Number (24hrs): +353 (0)1 809 2566

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
- CLP Regulation (EC) No 1272/2008:**
- Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
- Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 3: Flammable liquids, Category 3, H226
Skin Corr. 1B: Skin corrosion, Category 1B, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317
STOT RE 1: Specific target organ toxicity — Repeated exposure, Hazard Category 1 (Inhalation), H372
- 2.2 Label elements:**
- CLP Regulation (EC) No 1272/2008:**
- Danger
- 
- Hazard statements:**
- Acute Tox. 4: H332 - Harmful if inhaled.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation). Organs affected: Central nervous system.

** Changes with regards to the previous version

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SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/face protection.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor.
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Substances that contribute to the classification

Hydrocarbons, C10-C13,n-alkanes, iso-alkanes, cyclics, aromatics (2-25 %); Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanam (CAS: 475645-84-2); 3-aminopropyltriethoxysilane (CAS: 919-30-2)

2.3 Other hazards:

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of polymers, dispersants and organic compounds

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| Identification | Chemical name/Classification | Concentration |
|---|---|---------------|
| CAS: Non-applicable EC: 919-164-8 Index: Non-applicable REACH: 01-2119473977-17-XXXX | Hydrocarbons, C10-C13,n-alkanes, iso-alkanes, cyclics, aromatics (2-25 %)⁽¹⁾ Self-classified Regulation 1272/2008 Aquatic Chronic 3: H412; Asp. Tox. 1: H304; STOT RE 1: H372; EUH066 - Danger | 75 - <100 % |
| CAS: 475645-84-2 EC: Non-applicable Index: Non-applicable REACH: Non-applicable | Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanam⁽¹⁾ Self-classified Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318; Flam. Liq. 2: H225; Skin Corr. 1B: H314; Water-react. 3: H261 - Danger | 3 - <10 % |
| CAS: 919-30-2 EC: 213-048-4 Index: 612-108-00-0 REACH: 01-2119480479-24-XXXX | 3-aminopropyltriethoxysilane⁽¹⁾ Self-classified Regulation 1272/2008 Acute Tox. 4: H302; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger | 1 - <3 % |
| CAS: 123-86-4 EC: 204-658-1 Index: 607-025-00-1 REACH: 01-2119485493-29-XXXX | N-butyl acetate⁽²⁾ ATP CLP00 Regulation 1272/2008 Flam. Liq. 3: H226; STOT SE 3: H336; EUH066 - Warning | <1 % |

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

⁽²⁾ Substance with a Union workplace exposure limit

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

| Identification | Acute toxicity | | Genus |
|---|-----------------|--------------|--------|
| Hydrocarbons, C10-C13,n-alkanes, iso-alkanes, cyclics, aromatics (2-25 %) | LD50 oral | 15000 mg/kg | Rat |
| CAS: Non-applicable | LD50 dermal | 3400 mg/kg | Rabbit |
| EC: 919-164-8 | LC50 inhalation | Not relevant | |

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

| Identification | Acute toxicity | | Genus |
|----------------|------------------------------|--------------|-------|
| | 3-aminopropyltriethoxysilane | LD50 oral | |
| CAS: 919-30-2 | LD50 dermal | Not relevant | |
| EC: 213-048-4 | LC50 inhalation | Not relevant | |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

Contains substances that react with water producing extremely flammable gases.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

DO NOT USE WATER TO CLEAN.

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137 / The Dangerous Substances and Explosive Atmospheres Regulations 2002, 2002 No. 2776). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:**A.- Technical measures for storage**

Minimum Temp.: 4 °C

Maximum Temp.: 40 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters:**

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Substances whose occupational exposure limits have to be monitored in the workplace:

2021 Code of Practice for the Chemical Agents Regulations:

| Identification | Occupational exposure limits | | |
|----------------|---|----------|-----------------------|
| | N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | OEL (8h) | 50 ppm |
| | OEL (15 min) | 150 ppm | 723 mg/m ³ |

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|--|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | Systemic | Local | Systemic | Local |
| 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | Not relevant | Not relevant | 2 mg/kg | Not relevant |
| | Inhalation | Not relevant | Not relevant | 14 mg/m ³ | Not relevant |
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | Oral | Not relevant | Not relevant | Not relevant | Not relevant |
| | Dermal | 11 mg/kg | Not relevant | 11 mg/kg | Not relevant |
| | Inhalation | 600 mg/m ³ | 600 mg/m ³ | 300 mg/m ³ | 300 mg/m ³ |

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|--|------------|-----------------------|-----------------------|------------------------|------------------------|
| | | Systemic | Local | Systemic | Local |
| 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | Oral | Not relevant | Not relevant | 1 mg/kg | Not relevant |
| | Dermal | Not relevant | Not relevant | 1 mg/kg | Not relevant |
| | Inhalation | Not relevant | Not relevant | 3.5 mg/m ³ | Not relevant |
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | Oral | 2 mg/kg | Not relevant | 2 mg/kg | Not relevant |
| | Dermal | 6 mg/kg | Not relevant | 6 mg/kg | Not relevant |
| | Inhalation | 300 mg/m ³ | 300 mg/m ³ | 35.7 mg/m ³ | 35.7 mg/m ³ |

PNEC:

| Identification | | Short exposure | | Long exposure | |
|--|--------------|----------------|-------------------------|---------------|--------------|
| | | Systemic | Local | Systemic | Local |
| 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | STP | 1.3 mg/L | Fresh water | | Not relevant |
| | Soil | Not relevant | Marine water | | Not relevant |
| | Intermittent | Not relevant | Sediment (Fresh water) | | Not relevant |
| | Oral | Not relevant | Sediment (Marine water) | | Not relevant |
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | STP | 35.6 mg/L | Fresh water | | 0.18 mg/L |
| | Soil | 0.09 mg/kg | Marine water | | 0.018 mg/L |
| | Intermittent | 0.36 mg/L | Sediment (Fresh water) | | 0.981 mg/kg |
| | Oral | Not relevant | Sediment (Marine water) | | 0.098 mg/kg |



8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|--|---------------------|--|
|  Mandatory respiratory tract protection | Filter mask for gases and vapours (Filter type: A2) |  CAT III | EN 405:2002+A1:2010 | Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. |

C.- Specific protection for the hands

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|-------------------------------|--|-------------|---|--|
| Mandatory hand protection | NON-disposable chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.15 mm, Conditions of use: Normal) | CAT III | EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN ISO 21420:2020 | The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. |
| Mandatory hand protection | Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.15 mm, Conditions of use: Normal) | CAT III | EN ISO 21420:2020 | Replace the gloves at any sign of deterioration. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|-------------------------------|-------------|------------|---|---|
| Mandatory face protection | Face shield | CAT II | EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

E.- Body protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|---|-------------|---|---|
| Mandatory complete body protection | Disposable clothing for protection against chemical risks, with antistatic and fireproof properties | CAT III | EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994 | For professional use only. Clean periodically according to the manufacturer's instructions. |
| | Work clothing | CAT I | | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994. |
| Mandatory foot protection | Safety footwear for protection against chemical risk, with antistatic and heat resistant properties | CAT III | EN ISO 13287:2020 EN ISO 20345:2011 EN 13832-1:2019 | Replace boots at any sign of deterioration. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|----------------------|---|----------------------|--|
| Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 | Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C: Liquid
Appearance: Transparent
Color: Yellowish

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|--|---------------------------|
| Odor: | Ammoniacal |
| Odour threshold: | Not relevant * |
| Volatility: | |
| Boiling point at atmospheric pressure: | 190 °C |
| Vapour pressure at 20 °C: | 32 Pa |
| Vapour pressure at 50 °C: | 214.91 Pa (0.21 kPa) |
| Evaporation rate at 20 °C: | Not relevant * |
| Product description: | |
| Density at 20 °C: | 817.2 kg/m ³ |
| Relative density at 20 °C: | 0.807 - 0.827 |
| Dynamic viscosity at 20 °C: | Not relevant * |
| Kinematic viscosity at 20 °C: | Not relevant * |
| Kinematic viscosity at 40 °C: | <20.49 mm ² /s |
| Concentration: | Not relevant * |
| pH: | Not relevant * |
| Vapour density at 20 °C: | Not relevant * |
| Partition coefficient n-octanol/water 20 °C: | Not relevant * |
| Solubility in water at 20 °C: | Not relevant * |
| Solubility properties: | Not relevant * |
| Decomposition temperature: | Not relevant * |
| Melting point/freezing point: | Not relevant * |
| Flammability: | |
| Flash Point: | ~32 °C |
| Flammability (solid, gas): | Not relevant * |
| Autoignition temperature: | 300 °C |
| Lower flammability limit: | Not available |
| Upper flammability limit: | Not available |
| Particle characteristics: | |
| Median equivalent diameter: | Non-applicable |

9.2 Other information:

Information with regard to physical hazard classes:

| | |
|--|----------------|
| Explosive properties: | Not relevant * |
| Oxidising properties: | Not relevant * |
| Corrosive to metals: | Not relevant * |
| Heat of combustion: | Not relevant * |
| Aerosols-total percentage (by mass) of flammable components: | Not relevant * |

Other safety characteristics:

| | |
|---------------------------|----------------|
| Surface tension at 20 °C: | Not relevant * |
| Refraction index: | Not relevant * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

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SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|---------------------|------------|
| Not applicable | Not applicable | Risk of combustion | Avoid direct impact | Precaution |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Precaution | Avoid direct impact | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Serious health effects in the case of prolonged inhalation, including death, serious functional disorders or morphological changes of toxicological importance. Organs affected: Central nervous system.
- Skin: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

H- Aspiration hazard:

May be fatal if swallowed and enters airways.

Other information:

Not relevant

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|--|-----------------|-------------------|--------|
| | LD50 oral | LD50 dermal | |
| 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | LD50 oral | 1491 mg/kg (ATEI) | Rat |
| | LD50 dermal | 4000 mg/kg | Rabbit |
| | LC50 inhalation | | |
| Hydrocarbons, C10-C13,n-alkanes, iso-alkanes, cyclics, aromatics (2-25 %) CAS: Non-applicable EC: 919-164-8 | LD50 oral | 15000 mg/kg | Rat |
| | LD50 dermal | 3400 mg/kg | Rabbit |
| | LC50 inhalation | >13.1 mg/L (4 h) | Rat |
| Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanam CAS: 475645-84-2 EC: Non-applicable | LD50 oral | >301 mg/kg | Rat |
| | LD50 dermal | | |
| | LC50 inhalation | | |
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | LD50 oral | 12789 mg/kg | Rat |
| | LD50 dermal | 14112 mg/kg | Rabbit |
| | LC50 inhalation | 23.4 mg/L (4 h) | Rat |

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|--|---------------|-----------------------|-------------------------|------------|
| | LC50 | EC50 | | |
| Hydrocarbons, C10-C13,n-alkanes, iso-alkanes, cyclics, aromatics (2-25 %) CAS: Non-applicable EC: 919-164-8 | LC50 | >10 - 100 mg/L (96 h) | | Fish |
| | EC50 | >10 - 100 mg/L (48 h) | | Crustacean |
| | EC50 | >10 - 100 mg/L (72 h) | | Algae |
| Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanam CAS: 475645-84-2 EC: Non-applicable | LC50 | >10 - 100 mg/L (96 h) | | Fish |
| | EC50 | >10 - 100 mg/L (48 h) | | Crustacean |
| | EC50 | >10 - 100 mg/L (72 h) | | Algae |
| 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | LC50 | 934 mg/L (96 h) | Danio rerio | Fish |
| | EC50 | 331 mg/L (48 h) | N/A | Crustacean |
| | EC50 | 603 mg/L (72 h) | Desmodesmus subspicatus | Algae |

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SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Concentration | | Species | Genus |
|---|---------------|-----------------|-------------------------|------------|
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | LC50 | 18 mg/L (96 h) | Pimephales promelas | Fish |
| | EC50 | 44 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 675 mg/L (72 h) | Scenedesmus subspicatus | Algae |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|--|---------------|--------------|---------------|------------|
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | NOEC | Not relevant | | |
| | NOEC | 23.2 mg/L | Daphnia magna | Crustacean |

12.2 Persistence and degradability:

Substance-specific information:

| Identification | Degradability | | Biodegradability | |
|---|--|--------------|------------------|---------------|
| | 3-aminopropyltriethoxysilane CAS: 919-30-2 EC: 213-048-4 | BOD5 | Not relevant | Concentration |
| COD | | Not relevant | Period | 28 days |
| BOD5/COD | | Not relevant | % Biodegradable | 67 % |
| N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | BOD5 | Not relevant | Concentration | Not relevant |
| | COD | Not relevant | Period | 5 days |
| | BOD5/COD | Not relevant | % Biodegradable | 84 % |

12.3 Bioaccumulative potential:

Substance-specific information:

| Identification | Bioaccumulation potential | |
|----------------|---|------|
| | N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | BCF |
| Pow Log | | 1.78 |
| Potential | | Low |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|-----------------|---|----------------------|--------------|--------------|
| | N-butyl acetate CAS: 123-86-4 EC: 204-658-1 | Koc | Not relevant | Henry |
| Conclusion | | Not relevant | Dry soil | Not relevant |
| Surface tension | | 2.478E-2 N/m (25 °C) | Moist soil | Not relevant |

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste (Regulation (EU) No 1357/2014):

Not relevant

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EU) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

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SECTION 14: TRANSPORT INFORMATION **
Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:



| | |
|--|-----------------------------|
| 14.1 UN number or ID number: | UN3470 |
| 14.2 UN proper shipping name: | PAINT, CORROSIVE, FLAMMABLE |
| 14.3 Transport hazard class(es): | 8 |
| Labels: | 8, 3 |
| 14.4 Packing group: | II |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 163, 367 |
| Tunnel restriction code: | D/E |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 1 L |
| 14.7 Maritime transport in bulk according to IMO instruments: | Not relevant |

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



| | |
|--|-----------------------------|
| 14.1 UN number or ID number: | UN3470 |
| 14.2 UN proper shipping name: | PAINT, CORROSIVE, FLAMMABLE |
| 14.3 Transport hazard class(es): | 8 |
| Labels: | 8, 3 |
| 14.4 Packing group: | II |
| 14.5 Marine pollutant: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 163, 367 |
| EmS Codes: | F-E, S-C |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 1 L |
| Segregation group: | Not relevant |
| 14.7 Maritime transport in bulk according to IMO instruments: | Not relevant |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:



| | |
|--|-----------------------------|
| 14.1 UN number or ID number: | UN3470 |
| 14.2 UN proper shipping name: | PAINT, CORROSIVE, FLAMMABLE |
| 14.3 Transport hazard class(es): | 8 |
| Labels: | 8, 3 |
| 14.4 Packing group: | II |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Physico-Chemical properties: | see section 9 |
| 14.7 Maritime transport in bulk according to IMO instruments: | Not relevant |

** Changes with regards to the previous version

SECTION 15: REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

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SECTION 15: REGULATORY INFORMATION (continued)

Seveso III:

| Section | Description | Lower-tier requirements | Upper-tier requirements |
|---------|-------------|-------------------------|-------------------------|
| P5c | | 5000 | 50000 |

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

Chemicals (Amendment) Act 2010 (No. 32 of 2010) as amended by S.I. No. 623/2015- Safety, Health and Welfare at Work (Chemical Agents) (Amendment) Regulations 2015
 Chemicals Act 2008 (No. 13 of 2008)
 Safety, Health and Welfare (chemical agents) (amendment) regulations 2021 (S.I. No. 232 of 2021) and associated Code of Practice
 Chemical Agents Regulations (S.I. No. 619 of 2001)
 European Communities (Waste Directive) Regulations, S.I. No. 126 of 2011
 S.I. No. 315/2016 - European Union (Waste Directive) (Amendment) Regulations 2016.
 S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020
 Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015)
 The Chemicals Act (CLP Regulation) Regulations 2011 (S.I. No. 102 of 2011)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Substances that contribute to the classification (SECTION 2):

- New declared substances
 - 3-aminopropyltriethoxysilane (919-30-2)
 - Cyclosilazanes, di-Me, Me hydrogen, polymers with di-Me, Me hydrogen silazanes, reaction products with 3-(triethoxysilyl)-1-propanam (475645-84-2)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Hazard statements

TRANSPORT INFORMATION (SECTION 14):

- UN number

Texts of the legislative phrases mentioned in section 2:

H314: Causes severe skin burns and eye damage.
 H318: Causes serious eye damage.
 H412: Harmful to aquatic life with long lasting effects.
 H317: May cause an allergic skin reaction.
 H372: Causes damage to organs through prolonged or repeated exposure (Inhalation). Organs affected: Central nervous system.
 H332: Harmful if inhaled.
 H304: May be fatal if swallowed and enters airways.
 H226: Flammable liquid and vapour.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

** Changes with regards to the previous version

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SECTION 16: OTHER INFORMATION ** (continued)

Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Eye Dam. 1: H318 - Causes serious eye damage.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).
STOT SE 3: H336 - May cause drowsiness or dizziness.
Water-react. 3: H261 - In contact with water releases flammable gases.

Classification procedure:

Skin Corr. 1B: Calculation method
Eye Dam. 1: Calculation method
Aquatic Chronic 3: Calculation method
Skin Sens. 1: Calculation method
STOT RE 1: Calculation method
Acute Tox. 4: Calculation method
Asp. Tox. 1: Calculation method
Flam. Liq. 3: Calculation method (2.6.4.3)

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

**** Changes with regards to the previous version**

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -