Speedball Mid FireSAFETY DATA SHEET (SDS)

Version: 01 According to: Regulation (EC) No. 1272/2008

Date of Issue: November 22, 2023 Regulation (EC) No. 1907/2006

Section 1 - Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name: Speedball Mid Fire

Product Colors: Living Coral, Orange Creamsicle, Gossamer Drift, Raspberry Fizz, Variegated Lapis,

Storied Sage, Teal Agate, Blue Moss, Midnight Plum, Ethereal Blue, Coriander, Biscotti, Blackcurrant, Wisteria, Night Shade, Green Tourmaline, Buttermilk, Smoke,

Blushing White, Blackened Cooper, Champagne Quartz, Jasper

Product sizes: 2 fl. oz. (59.1 mL) - 128 fl. oz. (3.78 L)

Other Means of Identification

Unique Formula Identifier: See product label Other: See product label None known

Product Description: Colored liquid glaze formulations intended to be applied with a brush then placed in a

kiln for glaze firing.

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

Relevant identified use(s): The product is intended for general (adults) arts and crafts purposes.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Speedball Europe

Villantipolis 5

473 route des Dollines 06560 Valbonne, France

Business Phone: +33 6 03 36 21 73

Email: europe@speedballart.eu

1.4 Emergency telephone number

Emergency Telephone: Transportation emergencies only: Infotrac 1-352-323-3500

Section 2 – Hazard(s) Identification

2.1. Classification of the substance or mixture

According to: Regulation (EC) No 1272/2008 [CLP]

| | Health | Environment ^a | Physical |
|--|--------------------|---|--------------------|
| Classification according to Regulation (EC) No 1272/2008 [CLP] | Not classified | H401: Hazardous to the aquatic environment - short term (acute) hazard (Category 2) H411: Hazardous to the aquatic environment - long term (chronic) hazard (Category 2) | Not classified |
| SCL and/or M-factor | Not applicable | Not applicable | Not applicable |
| Classification Procedure | Weight of evidence | Weight of evidence | Weight of evidence |

^a This SDS applies to the product line, as such the environmental classifications listed do not pertain to all colors. It should be noted that some colors may present environmental concerns to a lesser degree (*i.e.*, Category 3 or 4) and some colors may present no concerns.

2.2. Label elements Label Pictogram:



Signal Word: Warning

Hazard Statements & Precautions:

Acute aquatic toxicity Toxic to aquatic life with long lasting effects.

(Category 2) (H401) P273: Avoid release to the environment.

Chronic aquatic toxicity P391: Collect spillage.

(Category 2) (H411) P501: Dispose of contents/container in accordance with local, regional,

national, and/or international regulation.

Supplemental Hazard Information:

• EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3. Other hazards

This product is not expected to be endocrine disrupting.

 This product is not expected to meet the criteria for vPvB or PBT in accordance with Regulation (EC) No. 1907/2006, Annex XIII.

Mechanical irritation of the eyes and respiratory system may occur following exposure dusts.

Section 3 – Composition / Information on Ingredients

3.1 Substances

The product is a mixture and not a substance.

3.2 Mixtures

| Chemical Name | CAS No. | EC No. | % Concentration ^a | GHS Hazards |
|--------------------------------|------------|-----------|------------------------------|---|
| Crystalline silica (Quartz) | 14808-60-7 | 238-878-4 | up to 23.2381% | H350: Carcinogenicity (Category 1) (Inhalation); H372: Specific target organ toxicity (repeated exposure, Category 1, lungs) |
| Cobalt carbonate | 513-79-1 | 208-169-4 | up to 0.7550% | H317: Skin sensitization (Category 1) H334: Respiratory sensitization (Category 1) H341: Germ cell mutagenicity (Category 2) H350: Carcinogenicity (Category 1B) (Inhalation); H360F: Reproductive toxicity (Category 1B; may damage fertility) H400: Hazardous to the aquatic environment - short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment - long term (chronic) hazard (Category 1) |
| Zinc oxide | 1314-13-2 | 215-222-5 | up to 2.2018% | H371: Specific target organ toxicity (single exposure, Category 2, gastrointestinal tract); H400: Hazardous to the aquatic environment – short term (acute) hazard (Category 1); H410: Hazardous to the aquatic environment – long term (chronic) hazard (Category 1) |
| Titanium dioxide | 13463-67-7 | 236-675-5 | up to 4.4036% | H351: Carcinogenicity (Category 2) (Inhalation) |
| Feldspar | 68476-25-5 | 270-666-7 | up to 15.6811% | H335: Specific target organ toxicity (single exposure, Category 3, respiratory irritation); H319: Eye Irritation (Category 2) |

Concentrations are calculated as a maximum across all products, rather than by color.

The other ingredients in the product are either considered non-hazardous or are below their respective GHS cut-off values/concentration limits in the final product and were therefore not disclosed in the SDS.

It should be noted that the product may contain quartz (CAS No.14808-60-7) and titanium dioxide (CAS No. 13463-67-7) which may be hazardous when inhaled. Given the nature and physical form of the product (*i.e.*, liquid glaze) airborne respirable particles would not likely be released from the product and therefore the hazard is not relevant to the product.

Assessment of this product was based on the assumption that the glaze will not be sanded after it has been fired in the kiln.

| | Specific Concentration Limit | Multiplying-Factor | Acute Toxicity Estimate |
|--------------------|------------------------------|--------------------|---|
| Speedball Mid Fire | N/A | 1 | >2000 mg/kg (oral/dermal) >20 mg/L (inhalation) |

Section 4 – First Aid Measures

4.1 Description of first aid measures

Eye contact: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and immediately flush eyes with water. Seek medical attention if in doubt.

Skin contact: No specific first aid measures are required. If irritation occurs, wash with plenty of water and soap. Take off contaminated clothing. If skin irritation persists: Get medical advice/attention.

Inhalation: No specific first aid measures are required. Inhalation route of exposure is not anticipated with intended use. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Seek medical attention if in doubt.

Ingestion: No specific first aid measures are required. Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if in doubt.

4.2 Most important symptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Not required.

Section 5 – Fire Fighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding area if material is involved in a fire (e.g., water fog, foam, dry chemical or carbon dioxide).

Unsuitable Extinguishing Media: None known.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

- Irritating vapours or fumes may form if product is involved in fire:
- Also see Section 10 Stability and Reactivity.

5.3 Advice for firefighters

• Wear a self-contained breathing apparatus to protect against potentially irritating vapours or fumes.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment (PPE) and emergency procedures

Personal Precautions: Ventilate area if spilled in confined space or other poorly ventilated areas. Observe PPE advice in **Section 8 – Exposure Controls/Personal Protection**.

Emergency Procedures: Not available.

6.2 Environmental precautions:

• Prevent entry and contact with soil, drains, sewers, and waterways. Inform relevant local/regional/national/international authorities. Prevent further leakage or spillage if it is safe to do so.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures: Contain spill if safe to do so. Collect recoverable product and place in a designated container for recycle and/or disposal. Ventilate contaminated area thoroughly. Dispose of contents/container in accordance with local/regional/national/international regulations.

6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7- Handling and Storage

7.1 Precautions for safe handling

- · Wash hands thoroughly after handling.
- Wash contaminated clothing before reuse.
- Employees should be trained in the safe use and handling of chemical materials.
- Refer to Section 8 Exposure Controls/Personal Protection.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed to avoid spills.
- Keep in a cool dry place.

7.3 Specific end use(s)

• Refer to Section 1.2 - Relevant identified uses.

Section 8- Exposure Controls / Personal Protection

8.1 Control Parameters:

Occupational exposure limits: Only vapours were considered to be foreseeable under conditions of normal use. Airborne particles, such as dust, are not foreseeable under conditions of normal use.

| Chemical Name | CAS No. | ACGIH TLVs TWA | OSHA PELs TWA | NIOSH RELs TWA | DFG MAK TWA |
|--|------------|----------------------------------|---|----------------------------|----------------------------------|
| Quartz (Silicon dioxide) | 14808-60-7 | 0.025 mg/m ³ R | 0.05 mg/m ³ | 0.05 mg/m ³ | N/A |
| Titanium dioxide | 13463-67-7 | 10 mg/m ³ | 15 mg/m ^{3 a} | N/A | 0.3 mg/m ^{3 b} R |
| Zinc oxide | 1314-13-2 | 2 mg/m ³ R | 15 mg/m ^{3 a} 5 mg/m ^{3 b} | 5 mg/m³ (dust only) | 0.1 mg/m ³ R |
| a Totalb Respirable | | | R Measured as N/A Not applicabl | respirable fraction of the | aerosol |

8.2 Exposure Controls:

Appropriate engineering controls

• No special requirements under ordinary conditions of use and with adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required.

8.3 Personal Protective Equipment

Note: Consider the concentration and amount of product at the workplace when selecting PPE. Use protective equipment as required.

Respiratory: Under normal conditions of use, respirator is not usually required. Use appropriate respiratory

protection if exposure to dust particles, mist or vapors is likely. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be

followed whenever workplace conditions require the use of a respirator.

Eyes/Face: If contact is likely, safety glasses with side shields are recommended.

Hands: Use good industrial hygiene practices to avoid skin contact. If contact with the material may

occur, wear chemically protective gloves.

Body/Skin: Gloves, coveralls, apron, boots as necessary to minimize contact. Do not wear rings, watches

or similar apparel that could entrap the material.

Thermal Hazards: None known.

Environmental Exposure

measures:

Controls: Not available.

Hygiene Observe good industrial hygiene practices. Avoid contact with skin. Contaminated work

clothing should not be allowed out of the workplace and should be washed before reuse.

When using the product do not eat, drink or smoke.

Section 9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Note: The data below are typical values and do not constitute a specification.

| Appearance: Physical state: | Liquid | | |
|----------------------------------|-----------------|---------------------------|---------------|
| Colour: | See section 1.1 | Partition Coefficient | Not available |
| Odour/Odour threshold: | Not available | n-octanol/water: | |
| Melting/freezing point: | Not available | pH (as supplied): | 7 - 8 |
| Boiling point and boiling range: | Not available | Solubility: | Not available |
| Flammability: | Not available | Kinematic viscosity: | Not available |
| Upper/lower explosive limits: | Not available | Vapour pressure: | Not available |
| Flash point: | Not available | Density: | Not available |
| Auto-ignition temperature: | Not available | Relative vapour density | Not available |
| Decomposition temperature: | Not available | Particle characteristics: | Not available |

9.2.1 Information with Regard to Physical Hazard Classes

| Explosives | Not available |
|---|---------------|
| Flammable gases | Not available |
| Aerosols | Not available |
| Oxidising gases | Not available |
| Gases under pressure | Not available |
| Flammable liquids | Not available |
| Flammable solids | Not available |
| Self-reactive substances and mixtures | Not available |
| Pyrophoric liquids | Not available |
| Pyrophoric solids | Not available |
| Self-heating substances and mixtures | Not available |
| Substances and mixtures, which emit flammable | Not available |

| gases in contact with water | |
|-----------------------------|---------------|
| Oxidising liquids | Not available |
| Oxidizing solids | Not available |
| Organic peroxides | Not available |
| Corrosive to metals | Not available |
| Desensitised explosives | Not available |

9.2.2 Other Safety Characteristics

| Mechanical sensitivity | Not available |
|--|---------------|
| Self-accelerating polymerisation temperature | Not available |
| Formation of explosible dust/air mixtures | Not available |
| Acid/alkaline reserve; (e) evaporation rate | Not available |
| Miscibility | Not available |
| Conductivity | Not available |
| Corrosiveness | Not available |
| Gas group | Not available |
| Redox potential | Not available |
| Radical formation potential | Not available |
| Photocatalytic properties | Not available |

Section 10 - Stability and Reactivity

10.1 Reactivity

This material is not considered to be reactive under normal handling and storage conditions.

10.2 Chemical stability

This material is considered stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions

Not expected to occur under normal handling and storage conditions.

10.4 Conditions to avoid

- Exposure to high temperatures
- Strong acids
- · Strong bases
- Strong oxidisers

10.5 Incompatible materials

- Strong acids
- Strong bases
- Strong oxidisers
- Strong reducing agents.

10.6 Hazardous decomposition products

Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other
products of incomplete combustion. Irritating and toxic substances may be emitted upon combustion, burning, or
decomposition of dry solids.

Section 11 – Toxicological Information

11.1. Information on hazard classes:

Likely routes of exposure: Skin contact.

Potential signs and symptoms: None expected under conditions of normal use.

Acute oral toxicity: The product is practically non-toxic based on available animal and human use data.

The oral ATE for the whole product is >2000 mg/kg.

Acute dermal toxicity: The product is practically non-toxic based on available animal and human use data.

The dermal ATE for the whole product is ATE >2000 mg/kg.

Acute inhalation toxicity: The product is practically nontoxic based on available animal and human use data.

The inhalation ATE for the whole product is >2 mg/L.

Skin corrosion/irritation: The ingredients of this product at >1% are not skin irritants based on human and/or

animal studies.

Serious eye damage/irritation: Feldspar (CAS No. 68476-25-5) has been classified for eye irritation (Category 2).

Product classification is not warranted for eye irritation based on a review of available data. The other ingredients in this product >1% are not damaging to the

eyes or eye irritants based on human and/or animal studies.

Respiratory or skin

Cobalt carbonate (CAS No. 513-79-1) has been classified for skin and respiratory sensitization:

sensitization (Category 1). The other ingredients in this product at >0.1% are not

sensitizing to the skin based on human and/or animal studies.

Mutagenicity: Cobalt carbonate (CAS No. 513-79-1) has been classified for germ cell mutagenicity

(Category 2). The other ingredients in the product at >0.1% are not mutagenic based on animal studies or no data identified for the ingredients in this product.

Carcinogenicity: Quartz (silicon dioxide) (airborne, unbound particles of respirable size)

(CAS No. 14808-60-7) has been classified for carcinogenicity (Category 1). Quartz (silicon dioxide) [listed as silica dust, crystalline, in the form of quartz or cristobalite (CAS No. 14808-60-7)] is listed as a carcinogen by IARC, NTP and ACGIH. Titanium dioxide (airborne, unbound particles of respirable size) (CAS No. 13463-67-7) has been classified for carcinogenicity (Category 2).

Titanium dioxide (airborne, unbound particles of respirable size)

(CAS No. 13463-67-7) is listed as a carcinogen by IARC and ACGIH. Product classification is not warranted for carcinogenicity based on nature of the product (i.e., liquid glaze). Cobalt carbonate (CAS No. 513-79-1) has been classified for

carcinogenicity (Category 1). Product classification is not warranted for carcinogenicity based on nature of the product (i.e., liquid glaze). The other ingredients in the product >0.1% are not carcinogenic based on animal studies or

no data identified for the ingredients in this product.

Reproductive Toxicity: Cobalt carbonate (CAS No. 513-79-1) has been classified for reproductive toxicity

> (Category 1B, may damage fertility). Product classification is not warranted for gastrointestinal irritation given the concentration of cobalt carbonate in the product and a review of available data. The other ingredients in the product at >0.1% are not reproductive toxicants based on animal studies or no data identified for the

ingredients in this product.

Specific target organ toxicity

(single exposure):

Zinc oxide (CAS No. 1314-13-2) has been classified for specific target organ toxicity (single exposure, Category 2; may cause irritation to the gastrointestinal tract through oral exposure). Product classification is not warranted for gastrointestinal irritation given the concentration of zinc oxide in the product and a review of available data. Feldspar (CAS No. 68476-25-5) has been classified for specific target organ toxicity (single exposure, Category 3; may cause respiratory irritation). Product classification is not warranted for this effect based on a review of available data and the nature of the product (i.e., liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity (single exposure) hazards based on animal studies or no data identified for the ingredients in this product

Specific target organ toxicity (repeated exposure):

Quartz (silicon dioxide) (CAS No. 14808-60-7) has been classified for specific target organ toxicity (repeated exposure, Category 1; causes damage to lungs through prolonged or repeated exposure *via* inhalation). Product classification is not warranted for this effect given the nature of the product (*i.e.*, liquid glaze). The other ingredients in this product >1% are not specific target organ toxicity hazards (repeated exposure) based on available information, human and/or animal studies.

Aspiration hazard:

The ingredients in the product at >1% are not aspiration hazards based on animal

studies or no data identified for the ingredients in this product.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

This product is not expected to be endocrine disrupting

11.2.2 Information on other hazards

No other hazards to note.

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database.

https://echa.europa.eu/search-for-chemicals

IARC (International Agency for Research on Cancer). 2023. Agents Classified by the IARC Monographs, Volumes 1–129. https://monographs.iarc.who.int/list-of-classifications/

NTP (National Toxicology Program). 2021. Report on Carcinogens, Fifteenth Edition.; Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service. https://ntp.niehs.nih.gov/go/roc15

Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008.

http://data.europa.eu/eli/reg/2008/1272/2022-03-01

Section 12 – Ecological Information

12.1 Toxicity

Product is classified for acute and chronic aquatic toxicity (Category 2).

| Chemical Name | CAS No. | Species | Result |
|----------------------|-----------|-------------------------|---|
| | | Oncorhynchus mykiss | LC ₅₀ : 0.8 mg Co/L |
| | | Ceriodaphnia dubia | LC ₅₀ : 0.61 mg Co/L |
| | | Dendraster excentricus | LC ₅₀ : 2.32 mg Co/L |
| | | Pseudokirchneriella | EC _{50:} 95 μg Co/L - 485 μg Co/L |
| Cobalt carbonate | 513-79-1 | subcapitata | EC _{10 :} 22.0 μg Co/L - 296 μg Co/L |
| | | Champia parvula | EC _{50:} 24.1 μg Co/L |
| | | | EC _{10 :} 1.23 μg Co/L |
| | | Skeletonema costatum | EC _{50:} 100,000 μg Co/L |
| | | Dunaliella tertiolecta | EC ₁₀ : 11,961 μg Co/L |
| | | Danio rerio | LC ₅₀ (96h): 1.793 mg/L (bulk ZnO) nominal EC ₅₀ (84h): 2.066 mg/L (bulk ZnO) nominal |
| Zinc oxide | 1314-13-2 | Danio rerio | NOEC (32d): ≥540 µg/L nominal |
| | | Daphnia magna | EC ₅₀ (48h): >1.4 - <2.5 mg/L nominal |
| | | Daphnia magna | EC ₁₀ (21d): 127 μg/L nominal EC ₁₀ (21d): 195 μg/L nominal |

12.2 Persistence and degradability

No data available for the other ingredients of the product.

12.3 Bioaccumulative potential

• No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Endocrine disrupting properties

• This product is not expected to be endocrine disrupting.

12.7 Other adverse effects

No further data available.

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. https://echa.europa.eu/search-for-chemicals

Section 13 – Disposal Considerations

13.1 Waste treatment methods

Preparing wastes for disposal: Use product for its intended purpose or recycle if possible. Dispose of waste in accordance with local, regional, national, and/or international regulations. The empty container has residues which may exhibit hazards of the product.

Contaminated Packaging: Container packaging is not expected to exhibit hazards.

Section 14 - Transport Information

Note: This product is regulated as dangerous goods for transport.

| 14.1 UN number | 3082 |
|--|--|
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.3 Transport hazard class(es): | 9 |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Chronic |
| 14.6 Special precautions for user | 274, 335, 601 |
| 14.7 Maritime transport in bulk according to IMO instruments | If the product is transported in bulk, the regulations are applied to the product. |

Section 15 – Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Note: The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in **Section 3 – Composition / Information on Ingredients**.

European Union

Seveso Directive (2012/18/EU): Ethylene oxide (CAS No. 75-21-8) is listed. No other ingredients in this product are listed. Formaldehyde (CAS No. 50-00-0) (listed as formaldehyde, concentration ≥ 90%) is listed; however, does not meet concentration requirement and therefore this listing does not apply. No other ingredients in this product are listed.

Regulation (EC) No. 1005/2009, Annex I and II: No ingredients in this product are listed.

Regulation (EU) No. 649/2012, Annex I, Parts I-III: Ethylene oxide (CAS No. 75-21-8), cadmium (CAS No. 7440-43-9), and mercury (CAS No. 7439-97-6) are listed. No other ingredients in this product are listed.

Regulation (EU) No. 2019/1021, Annex I: No ingredients in this product are listed.

Germany:

Wassergefährdungsklasse (water hazard class): WGK 3 – Schwach wassergefährdend (severe hazard to waters).

International:

IARC: Crystalline silica (listed as silica dust, crystalline, in the form of quartz or cristobalite) (CAS No. 14808-60-7), formaldehyde (CAS No. 50-00-0), ethylene oxide (CAS No.75-21-8), cadmium (listed as cadmium and cadmium compounds) (CAS No. 7440-43-9), and hexavalent chromium (listed as chromium, metallic) (CAS No. 7440-47-3) are listed as Group 1, carcinogenic to humans. Silicon carbide (CAS No. 409-21-2) is listed as Group 2A, probably carcinogenic to humans. Titanium dioxide (CAS No. 13463-67-7), 1,4-dioxane (CAS No. 123-91-1), lead (CAS No. 7439-92-1), cobalt (II, III) oxide (CAS No. 1308-06-1), and vanadium oxide [(listed as vanadium pentoxide (orthorhombic crystalline form)] (CAS No. 1314-62-1) are listed as Group 2B, possibly carcinogenic to humans. Iron oxide (listed as ferric oxide) (CAS No. 1309-37-1), free crystalline silica (respirable fraction) (listed as silica, amorphous) (CAS No. 7631-86-9), mercury (CAS No. 7439-97-6), and wollastonite (CAS No. 13983-17-0) are listed as Group 3, not classifiable as to its carcinogenicity to humans. No other ingredients in this product are classified with respect to carcinogenicity.

15.2 Chemical Safety Assessment

• None available for the ingredients in this product.

Section 16 – Other Information

List of acronyms and abbreviations:

| ACGIH: American conference of Governmental Hygienists | PBT: Persistent, Bioaccumulative and Toxic |
|---|---|
| ATE: Acute Toxicity Estimate | PEL: Permissible Exposure Level |
| CAS: Chemical Abstract Service Number | PPE: Personal Protective Equipment |
| CLP: Classification, Labelling and Packaging Regulation | REACH: Registration, Evaluation, Authorisation and |
| (EC) No. 1272/2008 | Restriction of Chemicals |
| DFG MAK: Deutsche Forschungsgemeinschaf Maximale Arbeitsplatz-Konzentration | REL: Recommended exposure level |
| EC: European Commission | SDS: Safety Data Sheet |
| ECHA: European Chemicals Agency | STOT RE: Specific target organ toxicity (repeated exposure) |
| GHS: Global Harmonized System | TLV: Threshold limit value |
| IARC: International Agency for Research on Cancer | TWA: Time-weighted average |
| IMO: International Maritime Organization | UN: United Nations |
| NIOSH: National Institute for Occupational Safety & | vPvB: very Persistent, very Bioaccumulative |
| Health | 1 |
| NTP: National Toxicology Program | WGK: Wassergefährdungsklasse |
| OSHA: Occupational Safety and Health Administration | |

References:

ECHA (European Chemicals Agency). 2023. REACH Registered Substances Database. https://echa.europa.eu/search-for-chemicals

IARC (International Agency for Research on Cancer). 2023. Agents Classified by the IARC Monographs, Volumes 1–129. https://monographs.iarc.who.int/list-of-classifications/

NTP (National Toxicology Program). 2021. Report on Carcinogens, Fifteenth Edition.; Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service. https://ntp.niehs.nih.gov/go/roc15
Official Journal of the European Union. 2008. Regulation (EC) No 1272/2008.
https://data.europa.eu/eli/reg/2008/1272/2022-03-01

Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. 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.

Revision Indicator: This is a new Safety Data Sheet.

Creation Date: November 22, 2023