

was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

GARADRY SEALANT & ADHESIVE 290ML BLACK Supercedes Date: 19-Nov-2020 Revision date 18-Mar-2021 Revision Number 2

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

1.1. Product identifier

Product Name Pure substance/mixture GARADRY SEALANT & ADHESIVE 290ML BLACK Mixture

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

Recommended useAdhesives and/or sealants.Uses advised againstNot to be used in production of toys or childcare articles1.3. Details of the

supplier of the safety data sheet

Company Name

Yellow Product Design Ltd Units 16-18 17 Summerwood Lane Halsall, Ormskirk L39 8RG Tel: + 44 (0) 1704 532 360

E-mail address

info@yellowproductdesign.com

1.4. Emergency telephone number

 United Kingdom
 +44 (1785) 272650

 Ireland
 +353 (1) 8624900 (Monday- Friday 9am-5pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Signal word

None

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

EU Specific Hazard Statements

EUH208 - Contains Trimethoxyvinylsilane & N-(3-(trimethoxysilyl)propyl)ethylenediamine & 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- & Dioctyltinbis(acetylacetonate). May produce an allergic reaction EUH210 - Safety data sheet available on request

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2.3. Other hazards

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. May be harmful in contact with skin.

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

| Chemical name | EC No | CAS No | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | REACH registration number |
|---|-----------|------------|----------|--|--|---------------------------------|
| Trimethoxyvinylsilane | 220-449-8 | 2768-02-7 | 1- <2.5 | Skin Sens. 1B (H317) Acute Tox. 4 (H332) Flam. Liq. 3 (H226) | | 01- 211951321552XXXX |
| N-(3-(trimethoxysilyl)pro pyl)ethylenediamine | 217-164-6 | 1760-24-3 | 0.1 - <1 | Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H332) STOT SE 3 (H335) | | 01- 211997021539XXXX |
| Dioctyltinbis(acetylaceto nate) | 483-270-6 | 54068-28-9 | 0.1 - <1 | STOT SE 2 (H371) Skin Sens. 1 (H317) | Skin Sens. 1 :: C>=5% | 01- 000002019967XXXX |
| 1,2-Ethanediamine, N-[3-(dimethoxymethylsil yl)propyl]- | 221-336-6 | 3069-29-2 | 0.1 - <1 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317) | | 01- 211996392621- xxxx |

Full text of H- and EUH-phrases: see section 16

Note: ^ indicates not classified, however, the substance is listed in section 3 as it has an OEL

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

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SECTION 4: First aid measures

| 4.1. Description of first aid measures | | | | |
|---|---|--|--|--|
| General advice | Show this safety data sheet to the doctor in attendance. If medical advice is needed, have product container or label at hand. | | | |
| Inhalation | Remove to fresh air. If symptoms persist, call a doctor. | | | |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | | | |
| Skin contact | Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor. | | | |
| Ingestion <u>4.2. Most important symptoms and</u> | Call a doctor immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Small amounts of toxic methanol are released by hydrolysis. d effects, both acute and delayed | | | |
| Symptoms | None known. | | | |
| 4.3. Indication of any immediate m | nedical attention and special treatment needed | | | |
| Note to doctors | Treat symptomatically. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. | | | |
| SECTION 5: Firefighting measures | | | | |

5.1. Extinguishing media

Unsuitable extinguishing media Full water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the Thermal decomposition can lead to release of irritating gases and vapours. **chemical**

Hazardous combustion products Carbon oxides. Carbon monoxide. Carbon dioxide (CO2). Silicon dioxide.

5.3. Advice for firefighters

Special protective equipment and Wear self contained breathing apparatus for fire fighting if necessary. precautions for fire-fighters

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| Personal precautions | Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. |
|------------------------------------|--|
| For emergency responders | Use personal protection recommended in Section 8. |
| 6.2. Environmental precautions | |
| Environmental precautions | Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information. |
| 6.3. Methods and material for cont | ainment and cleaning up |
| Methods for containment | Do not scatter spilled material with high pressure water streams. |

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| Methods for cleaning up | Take up mechanically, placing in appropriate containers for disposal. | | |
|--|--|--|--|
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. | | |
| 6.4. Reference to other sections | | | |
| Reference to other sections | See section 8 for more information. See section 13 for more information. | | |
| | | | |
| SECTION 7: Handling and s | torage | | |
| 7.1. Precautions for safe handling | | | |
| Advice on safe handling | Ensure adequate ventilation. | | |
| General hygiene considerations | Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. | | |
| 7.2. Conditions for safe storage, in | cluding any incompatibilities | | |
| Storage Conditions | Protect from moisture. Keep away from food, drink and animal feedingstuffs. | | |
| 7.3. Specific end use(s) | | | |
| Specific use(s) Adhesives and/or sealants. | | | |
| Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet. | | | |
| Other information | Observe technical data sheet. | | |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

| Chemical name | European Union | Ireland | United Kingdom |
|--------------------------------|---|--|--|
| Diisononylphthalate 28553-12-0 | - | TWA: 5 mg/m ³ STEL: 15 mg/m ³ | TWA: 5 mg/m ³ STEL: 15 mg/m ³ |
| Methyl alcohol 67-56-1 | TWA: 200 ppm TWA: 260 mg/m ³ * | TWA: 200 ppm TWA: 260 mg/m ³ STEL: 600 ppm STEL: 780 mg/m ³ Sk* | TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ Sk* |
| Chemical name | European Union | Ireland | United Kingdom |
| Methyl alcohol 67-561 | - | 15 mg/L (urine - Methanol end of shift) | - |

Derived No Effect Level (DNEL) No information available

| Derived No Effect Level (DNEL) Trimethoxyvinylsilane (2768-02-7) | | | | |
|---|------------|----------------|--|--|
| | | | | |
| worker Systemic health effects Long term | Inhalation | 27,6 mg/m³ | | |
| worker Systemic health effects Long term | Dermal | 3,9 mg/kg bw/d | | |

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| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | |
|--|----------------|-----------------------------------|---------------|
| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| worker Systemic health effects Long term | Inhalation | 35.5 mg/m³ | |
| worker Systemic health effects Long term | Dermal | 5 mg/kg bw/d | |

| Dioctyltinbis(acetylacetonate) (54068-28-9) | | | |
|--|----------------|--------------------------------|---------------|
| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Long term Systemic health effects worker | Dermal | 0.07 mg/kg bw/d | |
| Long term Systemic health effects worker | Inhalation | 84 mg/m³ | |
| Short term Systemic health effects worker | Inhalation | 84 mg/m³ | |
| Long term Short term Local health effects worker | Inhalation | 0.091 mg/m³ | |

| 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- (3069-29-2) | | | |
|--|----------------|-----------------------------------|---------------|
| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| worker Long term Systemic health effects | Inhalation | 12 mg/m³ | |
| worker Long term Systemic health effects | Dermal | 1.7 mg/kg bw/d | |

| Derived No Effect Level (DNEL) | | | | |
|--|----------------|--------------------------------|---------------|--|
| Trimethoxyvinylsilane (2768-02 | 2-7) | | | |
| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor | |
| Consumer Systemic health effects Long term | Inhalation | 18,9 mg/m³ | | |
| Consumer Systemic health effects Long term | Dermal | 7,8 mg/kg bw/d | | |
| Consumer Systemic health effects Long term | Oral | 0,3 mg/kg bw/d | | |

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| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | |
|--|----------------|-----------------------------------|---------------|
| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Consumer Systemic health effects Long term | Oral | 2.5 mg/kg bw/d | |
| Consumer Systemic health effects Long term | Inhalation | 8.7 mg/m³ | |
| Consumer Systemic health effects Long term | Dermal | 2.5 mg/kg bw/d | |

| Туре | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| Consumer Long term Systemic health effects | Inhalation | 2.9 mg/m³ | |
| Consumer Long term Systemic health effects | Dermal | 0.83 mg/kg bw/d | |
| Consumer Long term Systemic health effects | Oral | 0.83 mg/kg bw/d | |

Predicted No Effect Concentration No information available.

| Predicted No Effect Concentration (PNEC) | |
|--|--|
| Trimethoxyvinylsilane (2768-02-7) | |
| | |
| Environmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater | 0.34 mg/l |
| Marine water | 0.034 mg/l |
| Microorganisms in sewage treatment | 110 mg/l |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | |
|--|--|--|
| Environmental compartment | Predicted No Effect Concentration (PNEC) | |
| Freshwater | 0.062 mg/l | |
| Marine water | 0.0062 mg/l | |
| Sewage treatment plant | 25 mg/l | |

| Dioctyltinbis(acetylacetonate) (54068-28-9) | | | |
|---|--|--|--|
| En vironmental compartment | Predicted No Effect Concentration (PNEC) | | |
| Freshwater | 26 µg/l | | |
| Marine water | 2.6 µg/l | | |
| Freshwater-intermittent | 260 µg/l | | |
| Sewage treatment plant | 1 mg/l | | |
| Freshwatersediment | 0.155 mg/kg dry weight | | |
| Marinesediment | 0.0155 mg/kg dry weight | | |

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| Soil | 0.0158 mg/kg dry weight |
|---|--|
| 1,2-Ethanediamine, N-[3-(dimethoxymethyls | ilyl)propyl]- (3069-29-2) |
| En vironmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater | 0.062 mg/l |
| Marine water | 0.006 mg/l |
| Sewagetreatmentplant | 25 mg/l |
| Freshwatersediment | 0.24 mg/kg dry weight |
| Marinesediment | 0.024 mg/kg dry weight |
| Soil | 0.01 mg/kg dry weight |

8.2. Exposure controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment Eye/face protection

Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Recommended Use:. Neoprene™. Nitrile rubber. Butyl rubber. Glove thickness > 0.7mm. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374 Skin and body protection None under normal use conditions.

Respiratory protectionIn case of inadequate ventilation wear respiratory protection. Wear a respirator
conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation,
especially in confined areas.Recommended filter type:Organic gases and vapours filter conforming to EN 14387. White. Brown.

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

| 9.1. Information on basic physical | and chemical properties | | | |
|--|------------------------------------|------------------|--|--|
| Physical state | Solid | | | |
| Appearance | Paste | | | |
| Colour | See section 1 for more information | | | |
| Odour | Characteristic | | | |
| Odour threshold | No information available | | | |
| Property pH | Values | Remarks • Method | | |
| pH (as aqueous solution) | No data available | | | |
| Melting point / freezing point | No data available | | | |
| Initial boiling point and boiling | No data available | | | |
| range | | | | |
| Flash point | > 60 °C | | | |
| Evaporation rate | No data available | | | |
| Flammability | Not applicable for liquids . | | | |
| Flammability Limit in Air | | | | |
| Upper flammability or explosive | | | | |
| Lower flammability or explosive No data available limits | | | | |

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| Vapour pressure | No data available |
|---|--|
| Relative vapour density | No data available |
| Relative density | No data available |
| Water solubility | Product cures with moisture |
| Solubility(ies) Partition coefficient | No data available |
| Autoignition temperature | No data available |
| Decomposition temperature | No data available |
| Kinematic viscosity | No data available > 21 mm²/s |
| Dynamic viscosity | No data available |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| | |
| 0.2 Other information | |
| 9.2. Other information Solid content (%) | No information available |
| VOC Content (%) | No momator available |
| Density | 1.58 g/cm ³ |
| SECTION 10: Stability and | |
| _ | louoling |
| 10.1. Reactivity | |
| Reactivity | Product cures with moisture. |
| 10.2. Chemical stability | |
| | |
| Stability | Stable under normal conditions. |
| Explosion data | |
| Sensitivity to mechanical | None. impact |
| Sensitivity to static discharge | e None. |
| 10.3. Possibility of hazardous rea | |
| | |
| TU.S. POSSIBILITY OF HAZATOOUS TEA | |
| Possibility of hazardous reaction | |
| Possibility of hazardous reaction | |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> | s None under normal processing. |
| Possibility of hazardous reaction | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and |
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| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> Conditions to avoid <u>10.5. Incompatible materials</u> | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> Conditions to avoid <u>10.5. Incompatible materials</u> Incompatible materials <u>10.6. Hazardous decomposition p</u> | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> Conditions to avoid <u>10.5. Incompatible materials</u> Incompatible materials <u>10.6. Hazardous decomposition p</u> Hazardous decomposition | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. |
| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> Conditions to avoid <u>10.5. Incompatible materials</u> Incompatible materials <u>10.6. Hazardous decomposition p</u> Hazardous decomposition | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are |
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| Possibility of hazardous reaction <u>10.4. Conditions to avoid</u> Conditions to avoid <u>10.5. Incompatible materials</u> Incompatible materials <u>10.6. Hazardous decomposition p</u> Hazardous decomposition | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. |
| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition products formed by hydrol | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. Information |
| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition p Hazardous decomposition products formed by hydrol SECTION 11: Toxicological 11.1. Information on toxicological | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. Information effects |
| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition p Hazardous decomposition products formed by hydrol SECTION 11: Toxicological 11.1. Information on toxicological Information on likely routes of ex | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. Information effects |
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| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition products formed by hydrol SECTION 11: Toxicological 11.1. Information on toxicological Information on likely routes of expression | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. Information Leffects posure . |
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| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition products formed by hydrol SECTION 11: Toxicological 11.1. Information on toxicological Information on likely routes of ex Product Information Inhalation | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. roducts None under normal use conditions. Small amounts of methanol (CAS 67 -56-1) are ysis and released upon curing. Information Leffects posure . Based on available data, the classification criteria are not met. |
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| Possibility of hazardous reaction 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Incompatible materials 10.6. Hazardous decomposition products formed by hydrol SECTION 11: Toxicological 11.1. Information on toxicological Information on likely routes of ex Product Information Inhalation Eye contact Skin contact | s None under normal processing. Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition. None known based on information supplied. products None under normal use conditions. Small amounts of methanol (CAS 67-56-1) are ysis and released upon curing. Linformation Leffects posure . Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. |

physical, chemical and toxicological characteristics

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Symptoms

No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal) 3,552.50 mg/kg ATEmix (inhalation-vapour) 699.5098 mg/l

Component Information .

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|--|--|--|
| Trimethoxyvinylsilane 2768- 02-7 | LD50 = 7120 -7236 mg/kg (Rattus) OECD 401 | = 3360 µL/kg (Oryctolagus cuniculus) | LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403 |
| N-(3- (trimethoxysilyl)propyl)eth ylenediamine 1760-24-3 | =2295 mg/kg (Rattus) | >2000 mg/Kg (Rattus) | LC50 4H (Aerosol)1.5 - 2.44 mg/L air |
| Dioctyltinbis(acetylacetonate) 54068-28-9 | LD50 =2500 mg/kg (Rattus) | LD50 >2000 mg/kg (Rattus) | |
| 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)pro pyl]- 3069-29-2 | =200 - 2000 mg/Kg (Rattus) (OECD 401) | >5000 mg/Kg (Oryctolagus cuniculus) (OECD 402) | |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met. Serious eye

damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

| Product Information | | | |
|--|--------------------|------------------------------------|--|
| Method | Species | Exposure route | Results |
| OECD Test No. 406: Skin Sensitisation | Guinea pig | Dermal | No sensitisation responses were observed |
| OECD Test No. 406: Skin Sensitisation | Guinea pig | Dermal | No sensitisation responses were observed |
| Germ cell mutagenicity | Based on available | data the classification criteria a | are not met |

Germ cell mutagenicity

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

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

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

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

- single exposure

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 STOT - repeated exposure
 Based on available data, the classification criteria are not met.

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

 11.2. Information on other hazards
 Information on other hazards

 11.2.1. Endocrine disrupting properties
 No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

| Chemicalname | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea | M-Factor | M-Factor (longterm) |
|---|--|--|-------------------------------|--|----------|------------------------|
| Trimethoxyvinylsilane 2768-02-7 | EC 50 (72h) > 957 mg/l (Desmodesmus subspicatus) EU Method C.3 | LC50 (96h) = 191 mg/l (Oncorhynchus mykiss) | - | EC50(48hr) 168.7mg/l (Daphnia magna) | | |
| N-(3-(trimethoxysilyl)pr opyl)ethylenediamine 1760-24-3 | | LC50 (96H) =597 mg/L (Danio rerio)Semi-static | - | EC50 (48h) =81mg/L Daphnia magna Static | | |
| Dioctyltinbis(acetylacet onate) 54068-28-9 | - | LC50 (96h) =86 mg/L (Static) | - | EC50 (48h) =58.6 mg/L (Daphnia magna) | | |

12.2. Persistence and degradability

Persistence and degradability No information available.

| Component Information Trimethoxyvinylsilane (2768-02-7) | | | |
|---|---------------|-------|--------------------------------|
| Method | Exposure time | Value | Results |
| OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) | 28 days | BOD | 51 % Not readily biodegradable |

12.3. Bioaccumulative potential

Bioaccumulation

There is no data for this product.

Component Information

| Chemical name | Partition coefficient | Bioconcentration factor (BCF) |
|--------------------------------|-----------------------|-------------------------------|
| Trimethoxyvinylsilane 2768-02- | 1.1 | - |
| 7 | | |

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| N-(3- | -0.3 | - |
|---|------|---|
| (trimethoxysilyl)propyl)ethylenediamine | | |
| 1760-24-3 | | |

12.4. Mobility in soil

Mobility in soil

No information available.

<u>12.5. Results of PBT and vPvB assessment</u> PBT and vPvB assessment

| Chemical name | PBT and vPvB assessment |
|---|---------------------------------|
| Trimethoxyvinylsilane 2768-02- 7 | The substance is not PBT / vPvB |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine 1760-24-3 | The substance is not PBT / vPvB |
| Dioctyltinbis(acetylacetonate) 54068-28- 9 | The substance is not PBT / vPvB |
| 1,2-Ethanediamine, N-[3-(dimethoxymethylsilyl)propyl]- 3069-29-2 | The substance is not PBT / vPvB |

12.6. Other adverse effects

Other adverse effects

No information available.

SECTION 13: Disposal considerations

| <u>13.1. Waste treatment methods</u> Waste from residues/unused products | Uncured product should be disposed of as hazardous waste. Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable. |
|--|--|
| Contaminated packaging | Handle contaminated packages in the same way as the product itself. |
| European Waste Catalogue Other information Waste | 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09 codes should be assigned by the user based on the |

SECTION 14: Transport information

Land transport (ADR/RID) 14.1 UN number or ID number Not regulated 14.2 Proper Shipping Name Not regulated 14.3 Transport hazard class(es) Not regulated 14.4 Packing group Not regulated 14.5 Environmental hazards Not applicable 14.6 Special Provisions None IMDG Not regulated 14.1 UN number or ID number 14.2 Proper Shipping Name Not regulated

Not applicable

| 14.3 Transport hazard class(es) | Not regulated |
|---------------------------------|---------------|
| 14.4 Packing group | Not regulated |
| 14.5 Marine pollutant | NP |
| 14.6 Special Provisions | None |

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Air transport (ICAO-TI / IATA-DGR)14.1 UN number or ID numberNot regulated14.2 Proper Shipping NameNot regulated14.3 Transport hazard class(es)Not regulated14.4 Packing groupNot regulated14.5 Environmental hazardsNot applicable14.6 Special ProvisionsNone

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

| Chemicalname | CAS No | Restricted substance per REACH |
|----------------------|------------|--------------------------------|
| | | Annex XVII |
| Diisononyl phthalate | 28553-12-0 | 52[a]. |

52. Not to be used in toys or childcare articles above 0.1% which can be placed in the mouth by children.

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements

This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

| Chemical name European Export/Import Restrictions per (EC) 68 | |
|---|--------|
| | Number |
| Dioctyltinbis(acetylacetonate) | I.1 |

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

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Persistent Organic Pollutants Not applicable

National regulations

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

- H226 Flammable liquid and vapour
- H302 Harmful if swallowed
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H318 Causes serious eye damage
- H332 Harmful if inhaled
- H335 May cause respiratory irritation
- H371 May cause damage to organs

Legend

| TWA | TWA (time-weighted average) |
|-----------------------------------|---|
| STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Ceiling Limit Value |
| * | Skin designation |
| SVHC | Substance(s) of Very High Concern |
| PBT | Persistent, Bioaccumulative, and Toxic (PBT) Chemicals |
| vPvB | Very Persistent and very Bioaccumulative (vPvB) Chemicals |
| STOT RE | Specific target organ toxicity - Repeated exposure |
| STOT SE | Specific target organ toxicity - Single exposure |
| EWC | European Waste Catalogue |
| Key literature references and sou | irces for data |
| No information available | |
| Prepared By | Product Safety & Regulatory Affairs |
| Revision date | 18-Mar-2021 |
| Indication of changes | |
| Revision note | Not applicable. |
| Training Advice | |
| Training Advice | When working with hazardous materials, regular training of operators is required by law |
| Further information | No information available |
| Further information | |

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet