

Section 1. Identification of the substance and supplier

Product identifier

Mixture identification:

Trade name: MAPEFIX EP 385 comp.B

Trade code: 1961043

Recommended use of the chemical and restrictions on use

Recommended use: Chemical anchor for metallic rebar

Uses advised against: Data not available

Supplier's details

Company: MBP (NZ) Ltd. - 88 Carbine Road, Mount Wellington, Auckland 1060, New Zealand Email: enquiries@MBPLtd.co.nz Website: www.MBPLtd.co.nz - Phone: +64 9 921 1994 (Mon-Fri 9am-5pm) - Fax: +64 9 921 1993

Emergency phone number

New Zealand Poisons Centre: Ph: 0800 764 766

Section 2. Hazards identification

HSNO hazard classification

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

HSNO classification:

| 6.1D (oral) | H302 - Harmful if swallowed. |
|--------------------------|---|
| 6.1E (dermal) | H313 - May be harmful in contact with skin. |
| 8.2B | H314 - Causes severe skin burns and eye damage. |
| 8.3A | H318 - Causes serious eye damage. |
| 6.5B | H317 - May cause an allergic skin reaction. |
| 6.6B | H341.G - Suspected of causing genetic defects if inhaled, in contact with skin and if swallowed. |
| 6.8B | H361.G - Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed. |
| 6.9B (Repeated exposure) | H373.G - May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed. |
| 9.1C | H412 - Harmful to aquatic life with long lasting effects. |

Hazard information

Pictograms and Signal Words

Danger

Hazard statements:

| Precautionary statements: | | | | | |
|---------------------------|--|--|--|--|--|
| H412 | Harmful to aquatic life with long lasting effects. | | | | |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed. | | | | |
| H361 | Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed. | | | | |
| H341 | Suspected of causing genetic defects if inhaled, in contact with skin and if swallowed. | | | | |
| H318 | Causes serious eye damage. | | | | |
| H317 | May cause an allergic skin reaction. | | | | |
| H314 | Causes severe skin burns and eye damage. | | | | |
| H313 | May be harmful in contact with skin. | | | | |
| H302 | Harmful if swallowed. | | | | |
| | | | | | |

- P102 Keep out of reach of children.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/vapours/spray.

| P264 | Wash hands thoroughly after handling. |
|------------------|--|
| P270 | Do not eat, drink or smoke when using this product. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P281 | Use personal protective equipment as required. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |
| P301+P330+P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with |
| | water/shower. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position 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. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P314 | Get medical advice/attention if you feel unwell. |
| P321 | Specific treatment (see supplementary instructions on this label). |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P363 | Wash contaminated clothing before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with applicable regulations. |
| | ich do not result in a classification |
| Still Huzuids Wi | |

No other hazards

Section 3. Composition/information on ingredients

Substances

N.A.

Mixtures

Mixture identification: MAPEFIX EP 385 comp.B

Hazardous components within the meaning of HSNO Act and related classification

| Quantity | Name | Ident. Numb. | Classification |
|----------------|--|---|--|
| ≥25 - <50 % | 3-aminomethyl-3,5,5- trimethylcyclohexylamine | CAS:2855-13-2 EC:220-666-8 Index:612-067- 00-9 | 8.2B, H314; 8.3A, H318; 6.5B, H317; 9.1C, H412; 6.1D (oral), H302; 6.1D (dermal), H312 |
| ≥10 - <20 % | m-xylylenediamine | CAS:1477-55-0 EC:216-032-5 | 6.1D (inhalation), H332; 6.1D (oral), H302; 8.2B, H314; 6.5B, H317; 9.1C, H412 |
| ≥10 - <20 % | formaldehyde, oligomeric reaction products with 4,4'- isopropylidenediphenol and diethanolamine | CAS:77138-45-5 EC:500-263-6 | 8.2B, H314; 6.5B, H317 |
| ≥10 - <20 % | Formaldehyde, oligomeric reaction products with phenol and m- phenylenebis(methylamine) | CAS:57214-10-5 EC:500-137-0 | 8.2B, H314; 6.5B, H317; 9.1C, H412 |
| ≥5 - <10 % | 2,4,6- tris(dimethylaminomethyl)phenol | CAS:90-72-2 EC:202-013-9 | 8.2B, H314; 6.5B, H317; 9.1C, H412 |
| ≥5 - <10 % | 2,2'-iminodi(ethylamine) | CAS:111-40-0 EC:203-865-4 | 6.1B (inhalation), H330; 6.1D (oral), H302; 6.1D (dermal), H312; 8.2B, H314; 6.1E (respiratory tract irritant), H335; 6.5B, H317 |
| ≥2.5 - <5 % | bisphenol A; 4,4'- isopropylidenediphenol | CAS:80-05-7 EC:201-245-8 Index:604-030- 00-0 | 6.8B, H361f; 6.1E (respiratory tract irritant), H335; 8.3A, H318; 6.5B, H317 |

CAS:108-95-2 EC:203-632-7 Index:604-001-00-2 6.6B, H341; 6.9B (Repeated exposure), H373; 8.2B, H314; 6.1C (oral), H301; 6.1C (dermal), H311; 6.1C (inhalation), H331

Section 4. First aid measures

Description of necessary first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Give nothing to eat or drink.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

Indication of immediate medical attention and special treatment needed, if necessary

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Most important symptoms/effects, acute and delayed

Eye irritation

Eye damages

Skin Irritation

Erythema

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

Methods and materials for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Section 7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Section 8. Exposure controls/personal protection Workplace Exposure Standards

List of components with OEL value

| Component | OEL Type | Country | Ceiling | Long Term mg/m3 | Long Term ppm | Short Term mg/m3 | Short Term ppm | Behaviour Note |
|--------------------------|-------------|-------------|---------|-----------------------|---------------------|------------------------|----------------------|----------------|
| m-xylylenediamine | NZL | NEW ZEALAND | С | | | 0.100 | | |
| 2,2'-iminodi(ethylamine) | NZL | NEW ZEALAND | | 4.2 | 1 | | | |
| phenol; carbolic acid | NZL | NEW ZEALAND | | | 5 | | | |
| Biological Exposure Tre | daw | | | | | | | |

Biological Exposure Index

| CAS-No. | Component | Value | UoM | Medium | Biological Indicator | Sampling Period |
|----------|--------------------------|-------|----------|--------|-----------------------------|-----------------|
| 108-95-2 | phenol; carbolic acid | 250 | MGGCREAT | Urine | Phenol (Total) | End of turn |

Predicted No Effect Concentration (PNEC) values

| C | omponent | CAS-No. | PNEC Limit | Exposure Route | Exposure Frequency Remark |
|---|--|-----------|----------------|--|---------------------------|
| | aminomethyl-3,5,5- imethylcyclohexylamine | 2855-13-2 | 0.06 mg/l | Fresh Water | |
| | | | 1.121 mg/kg | Soil | |
| | | | 0.006 mg/l | Marine water | |
| | | | 5.784 mg/kg | Freshwater sediments | |
| | | | 0.578 mg/kg | Marine water sediments | |
| | | | 0.23 mg/l | Intermittent release | |
| | | | 3.18 mg/l | Microorganisms in sewage treatments | |
| m | -xylylenediamine | 1477-55-0 | 0.094 mg/kg | Fresh Water | |
| | | | 0.0094 mg/l | Marine water | |
| | | | 0.43 mg/kg | Freshwater sediments | |
| | | | 0.043 mg/kg | Marine water sediments | |
| | | | 0.152 mg/l | Intermittent release | |
| | | | 0.045 | Soil | |
| | | | | | |

| | | mg/kg | | | | |
|--|-----------|----------------|--------------|-------------------------|------------------|---------------------------------|
| | | 10 mg/l | | oorganisr age treati | | |
| 2,2'-iminodi(ethylamine) | 111-40-0 | 0.56 mg/ | l Fres | h Water | | |
| | | 0.056 mg | g/I Mari | ne water | | |
| | | 1072 mg/kg | | hwater ments | | |
| | | 107.2 mg/kg | | ne water ments | | |
| | | 0.32 mg/ | l Inter | rmittent i | release | |
| | | 6 mg/l | | oorganisr age treati | | |
| | | 214 mg/k | ka Soil | | | |
| bisphenol A; 4,4'- isopropylidenediphenol | 80-05-7 | 0.018 mg | - | h Water | | |
| | | 0.016 mg | g/l Mari | ne water | | |
| | | 3.7 mg/k | g Soil | | | |
| Derived No Effect Level | . (DNEL) | | | | | |
| Component | CAS-No. | Industr | | | Exposure Route | Exposure Frequency Remark |
| 3-aminomethyl-3,5,5- trimethylcyclohexylamine | 2855-13-2 | , | | 0.526 mg/kg | Human Oral | Long Term, systemic effects |
| m-xylylenediamine | 1477-55-0 | 0.33 mg/kg | | | Human Dermal | Long Term, systemic effects |
| | | 1.2 mg/m3 | | | Human Inhalation | Long Term, systemic effects |
| | | 0.2 mg/m3 | | | Human Inhalation | Long Term, local effects |
| 2,2'-iminodi(ethylamine) | 111-40-0 | | | 4.88 mg/kg | Human Oral | Short Term, local effects |
| | | 92.1 mg/m3 | | 27.5 mg/m3 | Human Inhalation | Short Term, systemic effects |
| | | 15.4 mg/m3 | | 4.6 mg/m3 | Human Inhalation | Long Term, systemic effects |
| | | 2.6 mg/m3 | | | Human Inhalation | Long Term, local effects |
| | | 11.4 mg/kg | | 4.88 mg/kg | Human Dermal | Long Term, systemic effects |
| bisphenol A; 4,4'- isopropylidenediphenol | 80-05-7 | | 1.4 mg/kg | 0.7 mg/kg | Human Dermal | Short Term, systemic effects |
| | | | 10 mg/m3 | 5 mg/m3 | Human Inhalation | Short Term, systemic effects |
| | | | 1.4 mg/kg | 0.7 mg/kg | Human Dermal | Long Term, systemic effects |
| | | | 10 mg/m3 | 0.25 mg/m3 | Human Inhalation | Long Term, systemic effects |
| | | | | 0.05 mg/kg | Human Oral | Short Term, systemic effects |
| | | | | 0.05 mg/kg | Human Oral | Long Term, systemic effects |
| | | | | 5 mg/m3 | Human Inhalation | Long Term, local effects |

Engineering Controls

N.A.

Personal Protective Equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

N.A.

Section 9. Physical and chemical properties

Physical state: Solid Appearance and colour: paste Black Odour: Characteristic Odour threshold: N.A. pH: N.A. Melting point / freezing point: N.A. Initial boiling point and boiling range: N.A. Flash point: N.A. Flammability (Solid, Gas): N.A. Upper/lower flammability or explosive limits: N.A. Vapour pressure: N.A. Vapour density: N.A. Relative density: N.A. Solubility in water: Insoluble Solubility in oil: N.A. Partition coefficient (n-octanol/water): N.A. Auto-ignition temperature: N.A. Decomposition temperature: N.A. Kinematic viscosity: N.A. Particle characteristics: No data available

Section 10. Stability and reactivity Reactivity Stable under normal conditions Chemical stability Data not available. Possibility of hazardous reactions None. Conditions to avoid Stable under normal conditions. Incompatible materials None in particular.

Hazardous decomposition products

None.

Section 11. Toxicological information Information on toxicological effects

Toxicological information of the mixture:

| MAPEFIX EP 385 comp.B | a) acute toxicity |
|-----------------------|---------------------------------------|
|-----------------------|---------------------------------------|

LD50 Oral Rat = 813.1 mg/kg LD50 Skin Rabbit = 1216.6 mg/kg LC50 Inhalation Vapour Rat = 5.53 mg/l

Toxicological information on main components of the mixture:

| 3-aminomethyl-3,5,5- trimethylcyclohexylaminea) acute toxicityLD50 Oral Rat = 1030 mg/kg LD50 Skin Rabbit > 2000 mg/kg LD50 Skin Rabbit > 2000 mg/kg (D50 Oral Rat = 1030 mg/kg LD50 Skin Rat > 2000 mg/kg NOAEL Oral Rat = 250 mg/kg NOAEL Oral Rat = 50 mg/kg LD50 Skin Rabbit = 2000 mg/kg LD50 Oral Rat = 1040 mg/kg LD50 Oral Rat = 1280 mg/kg LD50 Skin Rabbit = 1045 mg/kg LD50 Skin Rabbit = 1045 mg/kg LD50 Skin Rabbit = 1045 mg/kg LD50 Skin Rabbit = 1000 mg/kg LD50 Skin Rabbit = 1045 mg/kg LD50 Skin Rabbit = 1045 mg/kg LD50 Skin Rabbit = 1000 mg/kg LD50 Skin Rabbit = 3000 mg/kg | Toxicological information on main components of the mixture: | | | |
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| 2,4,6- tris (dimethylaminomethyl) phenola) acute toxicityLD50 Oral Rat = 2169 mg/kgLD50 Skin Rat = 1280 mg/kg LD50 Oral Rat = 1200 mg/kg2,2'-iminodi(ethylamine)a) acute toxicityLC50 Inhalation Rat = 1.8 mg/l 4h LD50 Skin Rabbit = 1045 mg/kg LD50 Oral Rat = 1140 mg/kg LD50 Oral Rat = 1140 mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kgbisphenol A; 4,4'- isopropylidenediphenola) acute toxicityLC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | | |
| tris (dimethylaminomethyl) phenol LD50 Skin Rat = 1280 mg/kg LD50 Oral Rat = 1200 mg/kg 2,2'-iminodi(ethylamine) a) acute toxicity LC50 Inhalation Rat = 1.8 mg/l 4h LD50 Skin Rabbit = 1045 mg/kg LD50 Oral Rat = 1140 mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg bisphenol A; 4,4'- isopropylidenediphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Oral Rat = 660 mg/kg | |
| LD50 Oral Rat = 1200 mg/kg2,2'-iminodi(ethylamine) a) acute toxicityLC50 Inhalation Rat = 1.8 mg/l 4h LD50 Skin Rabbit = 1045 mg/kg LD50 Oral Rat = 1140 mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kgbisphenol A; 4,4'- isopropylidenediphenola) acute toxicityLC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | tris (dimethylaminomethyl) | a) acute toxicity | LD50 Oral Rat = 2169 mg/kg | |
| 2,2'-iminodi(ethylamine) a) acute toxicity LC50 Inhalation Rat = 1.8 mg/l 4h LD50 Skin Rabbit = 1045 mg/kg LD50 Oral Rat = 1140 mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg bisphenol A; 4,4'- isopropylidenediphenol a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Skin Rat = 1280 mg/kg | |
| LD50 Skin Rabbit = 1045 mg/kgLD50 Oral Rat = 1140 mg/kgLD50 Skin Rabbit = 672 mg/kgLC50 Skin Rabbit = 672 mg/kgLC50 Inhalation Rat = 70 mg/l 4hLD50 Oral Rat = 1080 mg/kgbisphenol A; 4,4'- isopropylidenediphenola) acute toxicityLC50 Oral Rat = 3250 mg/kgLC50 Skin Rabbit = 3000 mg/kg | | | LD50 Oral Rat = 1200 mg/kg | |
| LD50 Oral Rat = 1140 mg/kg LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg bisphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | 2,2'-iminodi(ethylamine) | a) acute toxicity | LC50 Inhalation Rat = 1.8 mg/l 4h | |
| LD50 Skin Rabbit = 672 mg/kg LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg bisphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Skin Rabbit = 1045 mg/kg | |
| LC50 Inhalation Rat = 70 mg/l 4h LD50 Oral Rat = 1080 mg/kg bisphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Oral Rat = 1140 mg/kg | |
| bisphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Skin Rabbit = 672 mg/kg | |
| bisphenol A; 4,4'- a) acute toxicity LC50 Oral Rat = 3250 mg/kg isopropylidenediphenol LC50 Skin Rabbit = 3000 mg/kg | | | LC50 Inhalation Rat = 70 mg/l 4h | |
| isopropylidenediphenol LC50 Skin Rabbit = 3000 mg/kg | | | LD50 Oral Rat = 1080 mg/kg | |
| | | a) acute toxicity | LC50 Oral Rat = 3250 mg/kg | |
| LD50 Skin Rabbit = 3 ml/kg | | | LC50 Skin Rabbit = 3000 mg/kg | |
| | | | LD50 Skin Rabbit = 3 ml/kg | |
| LC50 Inhalation Rat > 170 mg/m3 6h | | | LC50 Inhalation Rat > 170 mg/m3 6h | |
| LD50 Oral Rat = 3300 mg/kg | | | LD50 Oral Rat = 3300 mg/kg | |
| phenol; carbolic acid a) acute toxicity LD50 Skin Rat = mg/kg | phenol; carbolic acid | a) acute toxicity | LD50 Skin Rat = mg/kg | |
| LD50 Oral Rat = 317 mg/kg | | | LD50 Oral Rat = 317 mg/kg | |
| LC50 Inhalation Rat = 316 mg/l | | | LC50 Inhalation Rat = 316 mg/l | |
| LD50 Skin Rabbit = 630 mg/kg | | | LD50 Skin Rabbit = 630 mg/kg | |
| LD50 Oral Rat = 340 mg/kg | | | LD50 Oral Rat = 340 mg/kg | |

If not differently specified, the information required in the regulation and listed below must be considered as N.A.

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- Toxicological kinetics, metabolism

i) STOT-repeated exposure

j) aspiration hazard

Section 12. Ecological information

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of components with eco-toxicological properties

| Component | Ident. Numb. | Ecotox Infos | |
|---|---|--|--|
| 3-aminomethyl-3,5,5- trimethylcyclohexylamine | CAS: 2855-13-2 - EINECS: 612-067- 00-9 - INDEX: 220- 666-8 | a) Aquatic acute toxicity : | LC50 Fish = 110 mg/L 96 |
| | | a) Aquatic acute toxicity : | EC50 Daphnia = 23 mg/L 48 |
| | | a) Aquatic acute toxicity : | NOEC Daphnia = 8.3 mg/L 48 |
| | | b) Aquatic chronic toxicity | : NOEC Daphnia = 3 mg/L - 21 d |
| | | a) Aquatic acute toxicity : | EC50 Algae > 50 mg/L 72 |
| | | a) Aquatic acute toxicity : | NOEC Algae = 1.5 mg/L 72 |
| | | a) Aquatic acute toxicity : | EC50 Daphnia Daphnia magna 14.6 mg/L 48h EPA |
| | | a) Aquatic acute toxicity : 72h IUCLID | EC50 Algae Desmodesmus subspicatus = 37 mg/L |
| m-xylylenediamine | CAS: 1477-55-0 - INDEX: 216-032-5 | a) Aquatic acute toxicity : | EC50 Algae = 20 mg/L 72 |
| | | a) Aquatic acute toxicity : | EC50 Daphnia = 15.2 mg/L 48 |
| | | a) Aquatic acute toxicity : | LC50 Fish > 100 mg/L 96 |
| | | a) Aquatic acute toxicity : | LC50 Fish = 87.6 mg/L 96 |
| | | a) Aquatic acute toxicity : | LC50 Fish Oryzias latipes = 87.6 mg/L 96h ECHA |
| Formaldehyde, oligomeric reactior products with phenol and m- phenylenebis(methylamine) | CAS: 57214-10-5 - INDEX: 500-137-0 | a) Aquatic acute toxicity : ECHA | LC50 Fish Oncorhynchus mykiss = 25.9 mg/L 96h |
| 2,4,6- tris(dimethylaminomethyl)phenol | CAS: 90-72-2 - INDEX: 202-013-9 | a) Aquatic acute toxicity : | LC50 Fish = 175 mg/L 96 |
| | | a) Aquatic acute toxicity : | EC50 Algae = 84 mg/L 72 |
| 2,2'-iminodi(ethylamine) | CAS: 111-40-0 - INDEX: 203-865-4 | a) Aquatic acute toxicity : | LC50 Fish = 322 mg/L 96 |
| | | a) Aquatic acute toxicity : | EC50 Daphnia = 16 mg/L 48 |
| | | a) Aquatic acute toxicity : IUCLID | LC50 Fish Poecilia reticulata = 248 mg/L 96h |
| | | a) Aquatic acute toxicity : | LC50 Fish Poecilia reticulata = 1014 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : IUCLID | EC50 Daphnia Daphnia magna = 16 mg/L 48h |
| | | a) Aquatic acute toxicity : mg/L 72h IUCLID | EC50 Algae Pseudokirchneriella subcapitata = 1164 |
| | | a) Aquatic acute toxicity : mg/L 96h EPA | EC50 Algae Pseudokirchneriella subcapitata = 345.6 |
| | | a) Aquatic acute toxicity : 96h IUCLID | EC50 Algae Desmodesmus subspicatus = 592 mg/L |
| bisphenol A; 4,4'- isopropylidenediphenol | CAS: 80-05-7 - EINECS: 604-030- 00-0 - INDEX: 201- 245-8 | a) Aquatic acute toxicity : | LC50 Fish = 4.6 mg/L 96 |
| | | a) Aquatic acute toxicity : | EC50 Daphnia = 7.75 mg/L 48 |
| | | | LC50 Fish Pimephales promelas 3.6 mg/L 96h EPA |
| | | | LC50 Fish Pimephales promelas 4 mg/L 96h EPA |
| | | | |

| | | a) Aquatic acute toxicity: IUCLID | LC50 Fish Oncorhynchus mykiss = 4 mg/L 96h |
|-------------------------------|--|--|---|
| | | a) Aquatic acute toxicity : | LC50 Fish Brachydanio rerio = 9.9 mg/L 96h IUCLID |
| | | , , , | EC50 Daphnia Daphnia magna = $10.2 \text{ mg/L} 48 \text{ h}$ |
| | | IUCLID | |
| | | a) Aquatic acute toxicity : IUCLID | EC50 Daphnia Daphnia magna = 3.9 mg/L 48h |
| | | a) Aquatic acute toxicity : | EC50 Daphnia Daphnia magna 9.2 mg/L 48h EPA |
| | | a) Aquatic acute toxicity : mg/L 96h IUCLID | EC50 Algae Pseudokirchneriella subcapitata = 2.5 |
| phenol; carbolic acid | CAS: 108-95-2 - EINECS: 604-001- 00-2 - INDEX: 203- 632-7 | a) Aquatic acute toxicity : 72h EPA | EC50 Algae Desmodesmus subspicatus 187 mg/L |
| | | d) Terrestrial toxicity : LC | 100 Worm Eisenia foetida = 6900 mg/kg 56d IUCLID |
| | | a) Aquatic acute toxicity : | LC50 Fish Pimephales promelas = $32 \text{ mg/L} 96h$ |
| | | IUCLID | |
| | | a) Aquatic acute toxicity : | LC50 Fish Oncorhynchus mykiss 5 mg/L 96h IUCLID |
| | | a) Aquatic acute toxicity : | LC50 Fish Poecilia reticulata = 31 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | LC50 Fish Pimephales promelas 11.9 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | LC50 Fish Pimephales promelas 20.5 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : EPA | LC50 Fish Oncorhynchus mykiss 5.449 mg/L 96h |
| | | a) Aquatic acute toxicity : | LC50 Fish Oncorhynchus mykiss 7.5 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | LC50 Fish Oncorhynchus mykiss 4.23 mg/L 96h EPA |
| | | a) Aquatic acute toxicity: EPA | LC50 Fish Lepomis macrochirus = 13.5 mg/L 96h |
| | | a) Aquatic acute toxicity : | LC50 Fish Lepomis macrochirus 11.9 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : EPA | LC50 Fish Lepomis macrochirus = $11.5 \text{ mg/L } 96h$ |
| | | a) Aquatic acute toxicity : | LC50 Fish Poecilia reticulata 34.09 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : IUCLID | LC50 Fish Brachydanio rerio = 27.8 mg/L 96h |
| | | a) Aquatic acute toxicity : | LC50 Fish Cyprinus carpio = 0.00175 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | LC50 Fish Oryzias latipes 33.9 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | LC50 Fish Oryzias latipes 23.4 mg/L 96h EPA |
| | | a) Aquatic acute toxicity : | EC50 Daphnia Daphnia magna 4.24 mg/L 48h EPA |
| | | a) Aquatic acute toxicity : | EC50 Daphnia Daphnia magna 10.2 mg/L 48h EPA |
| | | a) Aquatic acute toxicity : mg/L 96h EPA | EC50 Algae Pseudokirchneriella subcapitata = 46.42 |
| | | a) Aquatic acute toxicity : mg/L 96h EPA | EC50 Algae Pseudokirchneriella subcapitata 0.0188 |
| Persistence and degradability | | | |
| N.A. | | | |
| Bioaccumulative potential | | | |
| N.A. | | | |
| Mobility in soil | | | |
| N.A. | | | |
| Other adverse effects | | | |
| N.A. | | | |
| | | | |

Section 13. Disposal considerations Disposal methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Special precautions to be taken during disposal

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

Section 14. Transport information

UN number

3259

UN proper shipping name

NZS-Shipping Name: AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (diethylenetriamine isophoronediamine)

ADR-Shipping Name: AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (diethylenetriamine isophoronediamine) IATA-Technical name: AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (diethylenetriamine -

isophoronediamine)

IMDG-Technical name: AMINES, SOLID, CORROSIVE, N.O.S. or POLYAMINES, SOLID, CORROSIVE, N.O.S. (diethylenetriamine isophoronediamine)

Transport hazard class(es)

NZS-Class: 8

ADR-Class: 8

IATA-Class: 8

IMDG-Class: 8

Packing group, if applicable

NZS-Packing Group: II

ADR-Packing Group: II

IATA-Packing group: II

IMDG-Packing group: II

Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

Special precautions for user

NZS-Subsidiary risks: -

NZS-Special Dispositions: 274

Road and Rail (ADR-RID) :

ADR-Label: 8

ADR-Hazard identification number: 80

ADR-Special Provisions: 274

ADR-Transport category (Tunnel restriction code): 2 (E)

Air (IATA):

IATA-Passenger Aircraft: 859 IATA-Cargo Aircraft: 863

IATA-Label: 8

IATA-Subsidiary hazards: -

IATA-Erg: 8L

IATA-Special Provisioning: A3 A803

Sea (IMDG) :

IMDG-Stowage Code: Category A IMDG-Stowage Note: SG35 SGG18 IMDG-Subsidiary hazards: -

IMDG-Special Provisioning: 274 IMDG-EMS: F-A, S-B

Section 15. Regulatory information

HSNO Approval

HSNO approval number and group standard title:

HSR002658 - Surface Coatings and Colourants (Corrosive) Group Standard 2006

HSNO Controls

Approved Handler

No data available

New Zealand Inventory of Chemicals (NZIoC)

All components are listed on the NZIoC Inventory.

Regulatory references

Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 09-06). Hazardous Substances (Classification) Regulations 2001.

Labelling of Hazardous Substances: Hazard and Precautionary Information (January 2012 EPA0094).

Assigning a Product to a HSNO Approval (May 2013/Revised June 2014).

Section 16. Other information

Safety Data Sheet dated: 31/07/2020 - version 1

| Code | Description |
|--|--|
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H313 | May be harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H330 | Fatal if inhaled. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H341 | Suspected of causing genetic defects. |
| H341 | Suspected of causing genetic defects if inhaled, in contact with skin and if swallowed. |
| H361 | Suspected of damaging fertility or the unborn child if inhaled, in contact with skin and if swallowed. |
| H361f | Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H373 | May cause damage to organs through prolonged or repeated exposure if inhaled, in contact with skin and if swallowed. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Description of the HSNO Classification codes used in section 2 or 3: | |
| Code | Description |
| 6.1B (inhalation) | Substances that are acutely toxic - Fatal (inhalation). |
| 6.1C (dermal) | Substances that are acutely toxic- Toxic (dermal). |
| 6.1C (inhalation) | Substances that are acutely toxic- Toxic (inhalation). |
| 6.1C (oral) | Substances that are acutely toxic- Toxic (oral). |
| 6.1D (dermal) | Substances that are acutely toxic - Harmful (dermal). |
| 6.1D (inhalation) |) Substances that are acutely toxic - Harmful (inhalation). |
| 6.1D (oral) | Substances that are acutely toxic - Harmful (oral). |
| 6.1E (dermal) | Substances that are acutely toxic - May be harmful (dermal). |
| 6.1E (respiratory tract irritant) | Respiratory tract irritant. |

- 6.5B Substances that are contact sensitisers.
- 6.6B Substances that are suspected human mutagens.
- 6.8B Substances that are suspected human reproductive or developmental toxicants.
- 6.9B (Repeated
exposure)Substances that are harmful to human target organs or systems
(Repeated exposure).
- 8.2B Substances that are corrosive to dermal tissue UN PGII.
- 8.3A Substances that are corrosive to ocular tissue.
- 9.1C Substances that are harmful in the aquatic environment.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.

HSNO: Hazardous Substances and New Organisms Act 1996.