# POWER BOND, Component A, 110 ml

| Version | Revision Date: | SDS Number: | Date of last issue: 11/16/2022 |
|---|---|---|---|
| 5.0 | 12/15/2023 | 5247116-00007 | Date of first issue: 11/04/2019 |

## SECTION 1. IDENTIFICATION

| | | |
|---|---|---|
| Product name | : | POWER BOND, Component A, 110 ml |
| Product code | : | 893.450200A |
| Other means of identification | : | No data available |

**Manufacturer or supplier's details**

| | | |
|---|---|---|
| Company name of supplier | : | Würth Canada Limited |
| Address | : | 345 Hanlon Creek Blvd<br>GUELPH, ON N1C 0A1 |
| Telephone | : | +1 (905) 564 6225 |
| Telefax | : | +1 (905) 564 3671 |
| Emergency telephone | : | Emergencies involving a spill, fire, explosion or exposure:<br>CHEMTREC (24/7): 1-800-424-9300<br>Transport related emergencies:<br>CANUTEC (24/7): 1-613-996-6666 or * 666 (cell)<br><br>Urgences impliquant un déversement, incendie, explosion ou exposition:<br>CHEMTREC (24/7): 1-800-424-9300<br>Urgences liées au transport:<br>CANUTEC (24/7): 1-613-996-6666 ou * 666 (cellulaire) |
| E-mail address | : | prodsafe@wurth.ca |

**Recommended use of the chemical and restrictions on use**

| | | |
|---|---|---|
| Recommended use | : | Dual-component adhesive<br>Sealing material for various uses<br>Adhesives and/or sealants |
| Restrictions on use | : | Not applicable |

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the Hazardous Products Regulations**

| | | |
|---|---|---|
| Skin irritation | : | Category 2 |
| Serious eye damage | : | Category 1 |
| Skin sensitization | : | Sub-category 1A |
| Carcinogenicity | : | Category 2 |

| | | |
|---|---|---|
| Reproductive toxicity | : | Category 1B |
| Specific target organ toxicity - repeated exposure | : | Category 1 (Lungs, Adrenal gland, Liver, Heart) |

**GHS label elements**

Hazard pictograms :

Signal Word : Danger

Hazard Statements :
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H360D May damage the unborn child.
H372 Causes damage to organs (Lungs, Adrenal gland, Liver, Heart) through prolonged or repeated exposure.

Precautionary Statements :

**Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe vapors.
P264 Wash skin 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.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
P308 + P313 IF exposed or concerned: Get medical attention.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents and container to an approved waste disposal plant.

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

| Chemical name | Common Name/Synonym | CAS-No. | Concentration (% w/w) |
|---|---|---|---|
| Talc | Talc (Mg3H2(SiO3)4) | 14807-96-6 | >= 10 - < 30 * |
| Ethylenediamine, propoxylated | 1,2-Ethanediamine, polymer with 2-methyloxirane | 25214-63-5 | >= 1 - < 5 * |
| 3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine) | 1,6-Hexanediamine, N1,N6-bis(1,2,2-trimethylpropyl)- | 957787-76-7 | >= 1 - < 5 * |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl- | 2855-13-2 | >= 1 - < 5 * |
| (Di-butylamino) diphenylmethane | Benzenamine, 4,4'-methylenebis[N-(1-methylpropyl)- | 5285-60-9 | >= 1 - < 5 * |
| Silicon dioxide | Silica | 7631-86-9 | >= 1 - < 5 * |
| Tributyl phosphate | Phosphoric acid tributyl ester | 126-73-8 | >= 0.1 - < 1 * |

* Actual concentration or concentration range is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

| | | |
|---|---|---|
| In case of eye contact | : | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.<br>If easy to do, remove contact lens, if worn.<br>Get medical attention immediately. |
| If swallowed | : | If swallowed, DO NOT induce vomiting.<br>Get medical attention.<br>Rinse mouth thoroughly with water. |
| Most important symptoms and effects, both acute and delayed | : | Causes skin irritation.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Suspected of causing cancer.<br>May damage the unborn child.<br>Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders | : | First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| Notes to physician | : | Treat symptomatically and supportively. |

### SECTION 5. FIRE-FIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water spray<br>Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during fire fighting | : | Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : | Carbon oxides<br>Nitrogen oxides (NOx) |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Evacuate area. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment. |

### SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protec- | : | Use personal protective equipment. |

| | | |
|---|---|---|
| tive equipment and emergency procedures | | Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | : | Avoid release to the environment.<br>Prevent further leakage or spillage if safe to do so.<br>Prevent spreading over a wide area (e.g., by containment or oil barriers).<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | : | Soak up with inert absorbent material.<br>For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.<br>Clean up remaining materials from spill with suitable absorbent.<br>Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.<br>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

### SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Technical measures | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
| Local/Total ventilation | : | If sufficient ventilation is unavailable, use with local exhaust ventilation. |
| Advice on safe handling | : | Do not get on skin or clothing.<br>Do not breathe vapors.<br>Do not swallow.<br>Do not get in eyes.<br>Wash skin thoroughly after handling.<br>Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment<br>Keep container tightly closed.<br>Do not eat, drink or smoke when using this product.<br>Take care to prevent spills, waste and minimize release to the environment. |
| Conditions for safe storage | : | Keep in properly labeled containers.<br>Store locked up.<br>Keep tightly closed.<br>Store in accordance with the particular national regulations. |
| Materials to avoid | : | Do not store with the following product types:<br>Strong oxidizing agents<br>Self-reactive substances and mixtures |

Organic peroxides
Explosives
Gases

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| Talc | 14807-96-6 | TWAEV (respirable dust) | 2 mg/m³ | CA QC OEL |
| | | TWA (Respirable particulates) | 2 mg/m³ | CA AB OEL |
| | | TWA (Respirable) | 2 mg/m³ | CA BC OEL |
| | | TWA | 2 fibres per cubic centimeter | CA ON OEL |
| | | TWA (Respirable fraction) | 2 mg/m³ | CA ON OEL |
| | | TWA (Respirable particulate matter) | 2 mg/m³ | ACGIH |
| Silicon dioxide | 7631-86-9 | TWAEV (respirable dust) | 6 mg/m³ | CA QC OEL |
| Tributyl phosphate | 126-73-8 | TWA | 0.2 ppm<br>2.2 mg/m³ | CA AB OEL |
| | | TWA | 0.2 ppm | CA BC OEL |
| | | TWAEV (inhalable fraction and vapour) | 5 mg/m³ | CA QC OEL |
| | | TWA (Inhalable fraction and vapor) | 5 mg/m³ | ACGIH |

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|
| Tributyl phosphate | 126-73-8 | Acetylcholinesterase activity | In red blood cells | End of shift | 70 % of an individual's baseline | ACGIH BEI |
| | | Butyrylcholinesterase activity | In serum or plasma | End of shift | 60 % of an individual's baseline | ACGIH BEI |

**Engineering measures** : Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

**Personal protective equipment**

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapor type

Hand protection

Material : Nitrile rubber

Material : butyl-rubber

Material : Neoprene

Material : PVC

Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often!

Eye protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : viscous liquid

| | | |
|---|---|---|
| Color | : | black |
| Odor | : | slight, odorless |
| Odor Threshold | : | No data available |
| pH | : | No data available |
| Melting point/freezing point | : | No data available |
| Initial boiling point and boiling range | : | > 100 °C |
| Flash point | : | >= 112 °C |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Flammability (liquids) | : | Ignitable (see flash point) |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Relative density | : | 1.145 |
| Density | : | No data available |
| Solubility(ies) | | |
| Water solubility | : | insoluble |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | No data available |

| | | |
|---|---|---|
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Particle size | : | Not applicable |

### SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Can react with strong oxidizing agents. |
| Conditions to avoid | : | None known. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

Inhalation
Skin contact
Ingestion
Eye contact

**Acute toxicity**

Not classified based on available information.

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: > 2,000 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity | : | Acute toxicity estimate: > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |

**Components:**

**Talc:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg<br>Remarks: Based on data from similar materials |

**Ethylenediamine, propoxylated:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2,000 mg/kg |

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

Acute oral toxicity : LD50 (Rat): 550 mg/kg
Method: OECD Test Guideline 425

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Acute oral toxicity : LD50 (Rat, male): 1,030 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.01 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

**(Di-butylamino) diphenylmethane:**

Acute oral toxicity : LD50 (Rat, female): > 300 - 2,000 mg/kg
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

**Silicon dioxide:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 2.08 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Tributyl phosphate:**

Acute oral toxicity : LD50 (Rat): 1,552 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 4.242 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 3,100 mg/kg

**Skin corrosion/irritation**

Causes skin irritation.

**Components:**

**Talc:**

Species : Rabbit
Result : No skin irritation

**Ethylenediamine, propoxylated:**

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Result : Corrosive after 3 minutes to 1 hour of exposure
Remarks : Based on national or regional regulation.

**(Di-butylamino) diphenylmethane:**

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 431

Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 439

Result : No skin irritation

**Silicon dioxide:**

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

**Tributyl phosphate:**

Result : Skin irritation
Remarks : Based on national or regional regulation.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Components:**

**Talc:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |

**Ethylenediamine, propoxylated:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irritation to eyes, reversing within 21 days |
| Method | : | OECD Test Guideline 405 |

**3,3-Dimethylbutan-2-yl({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Species | : | Bovine cornea |
| Method | : | OECD Test Guideline 437 |
| Result | : | Irreversible effects on the eye |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irreversible effects on the eye |
| Method | : | OECD Test Guideline 405 |

**(Di-butylamino) diphenylmethane:**

| | | |
|---|---|---|
| Species | : | Bovine cornea |
| Method | : | OECD Test Guideline 437 |
| Result | : | No eye irritation |

**Silicon dioxide:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |

**Tributyl phosphate:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No eye irritation |
| Method | : | OECD Test Guideline 405 |

**Respiratory or skin sensitization**

**Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

Not classified based on available information.

**Components:**

**Talc:**

| | | |
|---|---|---|
| Routes of exposure | : | Skin contact |
| Species | : | Humans |
| Result | : | negative |

**Ethylenediamine, propoxylated:**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Routes of exposure | : | Skin contact |
| Species | : | Guinea pig |
| Method | : | OECD Test Guideline 406 |
| Result | : | negative |

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Routes of exposure | : | Skin contact |
| Species | : | Mouse |
| Method | : | OECD Test Guideline 429 |
| Result | : | positive |
| Assessment | : | Probability or evidence of skin sensitization in humans |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Test Type | : | Maximization Test |
| Routes of exposure | : | Skin contact |
| Species | : | Guinea pig |
| Method | : | OECD Test Guideline 406 |
| Result | : | positive |
| Assessment | : | Probability or evidence of high skin sensitization rate in humans |

**(Di-butylamino) diphenylmethane:**

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Routes of exposure | : | Skin contact |
| Species | : | Mouse |
| Method | : | OECD Test Guideline 429 |
| Result | : | positive |
| Assessment | : | Probability or evidence of low to moderate skin sensitization rate in humans |

**Tributyl phosphate:**

| | | |
|---|---|---|
| Routes of exposure | : | Skin contact |
| Species | : | Guinea pig |
| Result | : | negative |

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**Talc:**

Genotoxicity in vitro : Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Species: Rat
Application Route: Ingestion
Result: negative

**Ethylenediamine, propoxylated:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: Regulation (EC) No. 440/2008, Annex, B.13/14 (Ames test)

Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

**(Di-butylamino) diphenylmethane:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 490
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

**Silicon dioxide:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative

**Tributyl phosphate:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow

cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative

**Carcinogenicity**

Suspected of causing cancer.

**Components:**

**Talc:**

| | | |
|---|---|---|
| Species | : | Mouse |
| Application Route | : | inhalation (dust/mist/fume) |
| Exposure time | : | 2 Years |
| Result | : | negative |

**Silicon dioxide:**

| | | |
|---|---|---|
| Species | : | Rat |
| Application Route | : | Ingestion |
| Exposure time | : | 103 weeks |
| Result | : | negative |

**Tributyl phosphate:**

| | | |
|---|---|---|
| Species | : | Rat |
| Application Route | : | Ingestion |
| Exposure time | : | 24 month(s) |
| Result | : | positive |
| Carcinogenicity - Assessment | : | Limited evidence of carcinogenicity in animal studies |

**Reproductive toxicity**

May damage the unborn child.

**Components:**

**Talc:**

| | | |
|---|---|---|
| Effects on fetal development | : | Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Ingestion<br>Result: negative |

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Effects on fetal development | : | Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Ingestion<br>Method: OECD Test Guideline 414<br>Result: positive |
| Reproductive toxicity - Assessment | : | Clear evidence of adverse effects on development, based on animal experiments. |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

**(Di-butylamino) diphenylmethane:**

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative

**Silicon dioxide:**

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

**Tributyl phosphate:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Causes damage to organs (Lungs, Adrenal gland, Liver, Heart) through prolonged or repeated exposure.

**Components:**

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

Routes of exposure : Ingestion

| | | |
|---|---|---|
| Target Organs | : | Lungs, Adrenal gland, Liver, Heart |
| Assessment | : | Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less. |

**(Di-butylamino) diphenylmethane:**

| | | |
|---|---|---|
| Routes of exposure | : | Ingestion |
| Target Organs | : | Liver |
| Assessment | : | Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw. |

**Repeated dose toxicity**

**Components:**

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 5 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 28 Days |
| Method | : | OECD Test Guideline 407 |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 60 mg/kg |
| LOAEL | : | 160 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 13 Weeks |
| Method | : | OECD Test Guideline 408 |

**(Di-butylamino) diphenylmethane:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 15 mg/kg |
| Application Route | : | Ingestion |
| Method | : | OECD Test Guideline 422 |

**Silicon dioxide:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 1.3 mg/m³ |
| Application Route | : | inhalation (dust/mist/fume) |
| Exposure time | : | 13 Weeks |

**Tributyl phosphate:**

| | | |
|---|---|---|
| Species | : | Mouse |
| LOAEL | : | > 300 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 90 Days |

**Aspiration toxicity**

Not classified based on available information.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Components:**

**Talc:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Brachydanio rerio (zebrafish)): > 100,000 mg/l<br>Exposure time: 24 h |

**Ethylenediamine, propoxylated:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 4,600 mg/l<br>Exposure time: 96 h<br>Method: DIN 38412 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Method: Directive 67/548/EEC, Annex V, C.2. |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 150.7 mg/l<br>Exposure time: 72 h<br>Method: Directive 67/548/EEC, Annex V, C.3.<br><br>NOEC (Desmodesmus subspicatus (green algae)): 4.25 mg/l<br>Exposure time: 72 h<br>Method: Directive 67/548/EEC, Annex V, C.3. |
| Toxicity to microorganisms | : | NOEC: 700 mg/l<br>Exposure time: 3 h<br>Method: ISO 8192 |

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Toxicity to fish | : | LL50 (Pimephales promelas (fathead minnow)): 30.24 mg/l<br>Exposure time: 96 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 203 |
| Toxicity to microorganisms | : | EC50: > 100 mg/l<br>Exposure time: 3 h<br>Method: OECD Test Guideline 209 |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 110 mg/l<br>Exposure time: 96 h<br>Method: Regulation (EC) No. 440/2008, Annex, C.1 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 23 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic | : | EC10 (Desmodesmus subspicatus (green algae)): 11.2 mg/l |

| | | |
|---|---|---|
| plants | | Exposure time: 72 h<br>Method: Regulation (EC) No. 440/2008, Annex, C.3<br><br>ErC50 (Desmodesmus subspicatus (green algae)): > 50 mg/l<br>Exposure time: 72 h<br>Method: Regulation (EC) No. 440/2008, Annex, C.3 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 3 mg/l<br>Exposure time: 21 d |
| Toxicity to microorganisms | : | EC10 (Pseudomonas putida): 1,120 mg/l<br>Exposure time: 18 h<br>Test substance: Neutralized product |

**(Di-butylamino) diphenylmethane:**

| | | |
|---|---|---|
| Toxicity to fish | : | LL50 (Danio rerio (zebra fish)): > 0.61 mg/l<br>Exposure time: 96 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 203<br>Remarks: No toxicity at the limit of solubility. |
| Toxicity to daphnia and other aquatic invertebrates | : | EL50 (Daphnia magna (Water flea)): 0.21 mg/l<br>Exposure time: 48 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | EL50 (Pseudokirchneriella subcapitata (green algae)): 0.187 mg/l<br>Exposure time: 72 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 201<br><br>EL10 (Pseudokirchneriella subcapitata (green algae)): 0.081 mg/l<br>Exposure time: 72 h<br>Test substance: Water Accommodated Fraction<br>Method: OECD Test Guideline 201 |
| Toxicity to microorganisms | : | EC10 (activated sludge): 232 mg/l<br>Exposure time: 3 h<br>Method: OECD Test Guideline 209 |

**Silicon dioxide:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): > 10,000 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1,000 mg/l<br>Exposure time: 24 h<br>Method: OECD Test Guideline 202 |

| | | |
|---|---|---|
| Toxicity to algae/aquatic plants | : | EC50 (Desmodesmus subspicatus (green algae)): > 10,000 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials<br><br>NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials |

**Tributyl phosphate:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 2.6 mg/l<br>Exposure time: 48 h |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 2.8 mg/l<br>Exposure time: 72 h<br><br>EC10 (Desmodesmus subspicatus (green algae)): 0.92 mg/l<br>Exposure time: 72 h |
| Toxicity to fish (Chronic toxicity) | : | NOEC (Oncorhynchus mykiss (rainbow trout)): 0.82 mg/l<br>Exposure time: 95 d |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 0.87 mg/l<br>Exposure time: 21 d |
| Toxicity to microorganisms | : | EC50: 100 mg/l<br>Exposure time: 3 h<br>Method: OECD Test Guideline 209 |

**Persistence and degradability**

**Components:**

**Ethylenediamine, propoxylated:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable.<br>Biodegradation: 9 %<br>Exposure time: 28 d<br>Method: Regulation (EC) No. 440/2008, Annex, C.4-D |

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable.<br>Biodegradation: 44 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B |

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 8 %
Exposure time: 28 d
Method: Regulation (EC) No. 440/2008, Annex, C.4-A

**(Di-butylamino) diphenylmethane:**

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

**Tributyl phosphate:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

**Bioaccumulative potential**

**Components:**

**Ethylenediamine, propoxylated:**

Partition coefficient: n-octanol/water : log Pow: 0.3 - 1.6

**3,3-Dimethylbutan-2-yl)({6-[(3,3-dimethylbutan-2-yl)amino]hexyl}amine):**

Partition coefficient: n-octanol/water : log Pow: 2.1

**3-Aminomethyl-3,5,5-trimethylcyclohexylamine:**

Partition coefficient: n-octanol/water : log Pow: 0.99
Method: OECD Test Guideline 107

**(Di-butylamino) diphenylmethane:**

Partition coefficient: n-octanol/water : log Pow: 5.4
Method: OECD Test Guideline 117

**Tributyl phosphate:**

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 6.9 - 20

Partition coefficient: n-octanol/water : log Pow: 4

**Mobility in soil**

No data available

**Other adverse effects**

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Do not dispose of waste into sewer.<br><br>Dispose of in accordance with local regulations. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>If not otherwise specified: Dispose of as unused product. |

## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**
Not regulated as a dangerous good

**IATA-DGR**
Not regulated as a dangerous good

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**TDG**
Not regulated as a dangerous good

**Special precautions for user**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Volatile organic compounds (VOC) content**

CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999 - Guidelines for VOC in Consumer Products
VOC content: 0 % / 0 g/l

**The ingredients of this product are reported in the following inventories:**

| | | |
|---|---|---|
| DSL | : | All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL). |

### SECTION 16. OTHER INFORMATION

**Full text of other abbreviations**

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | : | ACGIH - Biological Exposure Indices (BEI) |
| CA AB OEL | : | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| CA BC OEL | : | Canada. British Columbia OEL |
| CA ON OEL | : | Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act. |
| CA QC OEL | : | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| CA AB OEL / TWA | : | 8-hour Occupational exposure limit |
| CA BC OEL / TWA | : | 8-hour time weighted average |
| CA ON OEL / TWA | : | Time-Weighted Average Limit (TWA) |
| CA QC OEL / TWAEV | : | Time-weighted average exposure value |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

| | | |
|---|---|---|
| Sources of key data used to compile the Material Safety | : | Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen- |

Data Sheet cy, http://echa.europa.eu/

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Date format : mm/dd/yyyy

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

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