



Barium Carbonate

ALPHA CHEMICALS PTY LTD

Chemwatch Hazard Alert Code: 2

Chemwatch: 4605-24

Version No: 5.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Issue Date: 01/11/2019

Print Date: 24/05/2022

S.GHS.AUS.EN

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

Product Identifier

| | |
|-------------------------------|---|
| Product name | Barium Carbonate |
| Chemical Name | barium carbonate |
| Synonyms | BaCO ₃ ; carbonic acid, barium salt; C.I. Pigment White 10; C.I. 77099; barium monocarbonate; B-29 |
| Proper shipping name | BARIUM COMPOUND, N.O.S. |
| Chemical formula | Not Applicable |
| Other means of identification | Not Available |

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

| | |
|--------------------------|---|
| Relevant identified uses | Used in ceramics, paints, enamels, marble substitutes, rubber; manufacture of paper, barium salts, electrodes, optical glasses. |
|--------------------------|---|

Details of the supplier of the safety data sheet

| | |
|-------------------------|---|
| Registered company name | ALPHA CHEMICALS PTY LTD |
| Address | 4 ALLEN PLACE WETHERILL PARK NSW 2099 Australia |
| Telephone | 61 (0)2 9982 4622 |
| Fax | Not Available |
| Website | ~ |
| Email | shane@alphachem.com.au |

Emergency telephone number

| Association / Organisation | ALPHA CHEMICALS PTY LTD | CHEMWATCH EMERGENCY RESPONSE |
|-----------------------------------|-------------------------|------------------------------|
| Emergency telephone numbers | 61 (0)418 237 771 | +61 1800 951 288 |
| Other emergency telephone numbers | Not Available | +61 3 9573 3188 |

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.


ChemWatch Hazard Ratings

| | Min | Max |
|--------------|-----|-----|
| Flammability | 0 | |
| Toxicity | 2 | |
| Body Contact | 1 | |
| Reactivity | 0 | |
| Chronic | 0 | |

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

| | |
|--------------------|---|
| Poisons Schedule | S6 |
| Classification [1] | Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

| | |
|---------------------|---|
| Hazard pictogram(s) |  |
|---------------------|---|

| | |
|-------------|----------------|
| Signal word | Warning |
|-------------|----------------|

Hazard statement(s)

| | |
|------|-----------------------|
| H332 | Harmful if inhaled. |
| H302 | Harmful if swallowed. |

Precautionary statement(s) Prevention

| | |
|------|---|
| P271 | Use only outdoors or in a well-ventilated area. |
| P261 | Avoid breathing dust/fumes. |
| P264 | Wash all exposed external body areas thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |

Precautionary statement(s) Response

| | |
|-----------|---|
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P330 | Rinse mouth. |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

| | |
|------|--|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|--|

Not Applicable

SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|----------|-----------|-----------------------------------|
| 513-77-9 | >97 | Barium carbonate, Technical grade |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures**Description of first aid measures**

| | |
|---------------------|--|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. |
| Inhalation | <ul style="list-style-type: none"> ▶ If dust is inhaled, remove from contaminated area. ▶ Encourage patient to blow nose to ensure clear passage of breathing. ▶ If irritation or discomfort persists seek medical attention. |
| Ingestion | <ul style="list-style-type: none"> ▶ For advice, contact a Poisons Information Centre or a doctor at once. ▶ Urgent hospital treatment is likely to be needed. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Transport to hospital or doctor without delay. |

Indication of any immediate medical attention and special treatment needed

Acute barium poisoning gives a rapid decrease in blood potassium level.
Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- ▶ Water spray or fog.
 - ▶ Dry chemical powder.
 - ▶ Alcohol stable foam.
- Carbon dioxide.

Special hazards arising from the substrate or mixture

| | |
|----------------------|------------|
| Fire Incompatibility | None known |
|----------------------|------------|

Advice for firefighters

| | |
|-----------------------|---|
| Fire Fighting | <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <ul style="list-style-type: none"> ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water courses. <p>DO NOT approach cylinders suspected to be hot.</p> <p>Cool fire exposed containers with water spray from a protected location.</p> <p>If safe to do so, remove containers from path of fire.</p> |
| Fire/Explosion Hazard | <p>Decomposes on heating and produces barium oxide and carbon dioxide. The barium oxide is strongly alkaline and upon contact with water is exothermic. When hot barium oxide reacts with oxygen to give a peroxide there is a fire and explosion risk.</p> <ul style="list-style-type: none"> ▶ Non combustible. ▶ Not considered to be a significant fire risk, however containers may burn. ▶ In a fire may decompose on heating and produce toxic / corrosive fumes. |
| HAZCHEM | 2Z |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| | |
|--------------|---|
| Minor Spills | <ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes. ▶ Wear impervious gloves and safety glasses. ▶ Use dry clean up procedures and avoid generating dust. ▶ Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). ▶ Do NOT use air hoses for cleaning ▶ Place spilled material in clean, dry, sealable, labelled container. |
| Major Spills | <p>Clear area of personnel.</p> <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <ul style="list-style-type: none"> ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water courses. <p>Stop leak if safe to do so.</p> <p>Collect recoverable product into labelled containers for recycling</p> <p>Collect residues and seal in labelled drums for disposal</p> <p>Wash spill area with large quantities of water.</p> <ul style="list-style-type: none"> ▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. <p>If contamination of drains or waterways occurs, advise emergency services.</p> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

| | |
|-------------------|---|
| Safe handling | <ul style="list-style-type: none"> ▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ Keep containers securely sealed when not in use. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. |
| Other information | <ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area. ▶ Store away from incompatible materials and foodstuff containers. ▶ Protect containers against physical damage and check regularly for leaks. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------|---|
| Suitable container | ▶ Packaging as recommended by manufacturer. |
|--------------------|---|

Barium Carbonate

| | |
|--------------------------------|--|
| | <ul style="list-style-type: none"> ▶ Check that containers are clearly labelled ▶ Glass container is suitable for laboratory quantities Plastic container Metal Metal drum |
| Storage incompatibility | Avoid storage with from acids, oxidizing agents, bromine trifluoride and 2-furanpercarboxylic acid. |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA


Not Available

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|-----------------------------------|-----------|-----------|-------------|
| Barium carbonate, Technical grade | 2.2 mg/m3 | 270 mg/m3 | 1,600 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|-----------------------------------|---------------|---------------|
| Barium carbonate, Technical grade | Not Available | Not Available |

Exposure controls

| | |
|---|---|
| Appropriate engineering controls | Use in a well-ventilated area Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. <ul style="list-style-type: none"> ▶ Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. |
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses. ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Impervious gloves ▶ Rubber gloves ▶ Safety footwear |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit. ▶ Ensure there is ready access to a safety shower. |

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES | P1 Air-line* | - - | PAPR-P1 - |
| up to 50 x ES | Air-line** | P2 | PAPR-P2 |
| up to 100 x ES | - | P3 | - |
| | | Air-line* | - |
| 100+ x ES | - | Air-line** | PAPR-P3 |

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|---|---|--|----------------|
| Appearance | White granular powder; almost insoluble in water. Odourless and tasteless. Soluble in acetic acid, hydrochloric acid, nitric acid, ammonium chloride and ammonium nitrate. Insoluble in alcohol and sulfuric acid. Solubility in water @ 18 deg.C: 0.0022 g/100cc @ 100 deg.C: 0.0065 g/100cc | | |
| Physical state | Divided Solid | Relative density (Water = 1) | 4.43 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Applicable | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | 811 | Viscosity (cSt) | Not Applicable |
| Initial boiling point and boiling range (°C) | 1300 decomposes | Molecular weight (g/mol) | 197.35 |
| Flash point (°C) | Non flammable. | Taste | Not Available |
| Evaporation rate | Not Applicable | Explosive properties | Not Available |
| Flammability | Non flammable. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Applicable |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | Not Applicable |
| Vapour pressure (kPa) | Not Applicable | Gas group | Not Available |
| Solubility in water | Immiscible | pH as a solution (Not Available%) | Not Applicable |
| Vapour density (Air = 1) | Not Applicable | VOC g/L | Not Available |

SECTION 10 Stability and reactivity

| | |
|---|---|
| Reactivity | See section 7 |
| Chemical stability | Unstable in the presence of incompatible materials Product is considered stable under normal handling conditions Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information

Information on toxicological effects

| | | |
|-------------------------|---|------------------------------------|
| Inhaled | Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Barium fumes are respiratory irritants. Over-exposure to barium dusts and fume may result in rhinitis, frontal headache, wheezing, laryngeal spasm, salivation and anorexia. Long term effects include nervous disorders and adverse effects on the heart, circulatory system and musculature. Heavy exposures may result in a benign pneumoconiosis. | |
| Ingestion | Other effects include metallic taste, blurred vision and kidney damage. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of soluble barium compounds may result in ulceration of the mucous membranes of the gastrointestinal tract, tightness in the muscles of the face and neck, gastroenteritis, vomiting, diarrhoea, muscular tremors and paralysis, anxiety, weakness, laboured breathing, cardiac irregularity due to contractions of smooth striated and cardiac muscles (often violent and painful), slow irregular pulse, hypertension, convulsions and respiratory failure. | |
| Skin Contact | Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. | |
| Eye | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. | |
| Chronic | Effects on the reproductive system of males and females have been reported from chronic inhalation exposure in rats. Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Barium compounds may cause high blood pressure, airway irritation and damage the liver, spleen and bone marrow. Prolonged exposure may cause a lung inflammation and scarring. | |
| Barium Carbonate | TOXICITY Not Available | IRRITATION Not Available |

| | | |
|-----------------------------------|---|-------------------|
| Barium carbonate, Technical grade | TOXICITY | IRRITATION |
| | dermal (rat) LD50: >2000 mg/kg ^[1] | Not Available |
| | Oral (Mouse) LD50; 200 mg/kg ^[2] | |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | |

| | | | |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity | ✓ | Carcinogenicity | ✗ |
| Skin Irritation/Corrosion | ✗ | Reproductivity | ✗ |
| Serious Eye Damage/Irritation | ✗ | STOT - Single Exposure | ✗ |
| Respiratory or Skin sensitisation | ✗ | STOT - Repeated Exposure | ✗ |
| Mutagenicity | ✗ | Aspiration Hazard | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

| Barium Carbonate | Endpoint | Test Duration (hr) | Species | Value | Source |
|-----------------------------------|--|--------------------|-------------------------------|---------------|---------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| Barium carbonate, Technical grade | Endpoint | Test Duration (hr) | Species | Value | Source |
| | NOEC(ECx) | 72h | Algae or other aquatic plants | >=1.15mg/l | 2 |
| | LC50 | 96h | Fish | >3.5mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | >1.15mg/l | 2 |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data | | | | |

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|-----------------------------------|-------------------------|------------------|
| Barium carbonate, Technical grade | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-----------------------------------|------------------------|
| Barium carbonate, Technical grade | LOW (LogKOW = -0.4605) |

Mobility in soil

| Ingredient | Mobility |
|-----------------------------------|----------------|
| Barium carbonate, Technical grade | HIGH (KOC = 1) |


SECTION 13 Disposal considerations

Waste treatment methods

| | |
|-------------------------------------|---|
| Product / Packaging disposal | Recycle wherever possible. Consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. |
|-------------------------------------|---|

SECTION 14 Transport information

Labels Required

| | |
|-------------------------|---|
| |  |
| Marine Pollutant | NO |

| | |
|----------------|----|
| HAZCHEM | 2Z |
|----------------|----|

Land transport (ADG)

| | | |
|-------------------------------------|-------------------------|----------------|
| UN number | 1564 | |
| UN proper shipping name | BARIUM COMPOUND, N.O.S. | |
| Transport hazard class(es) | Class | 6.1 |
| | Subrisk | Not Applicable |
| Packing group | III | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | Special provisions | 177 223 274 |
| | Limited quantity | 5 kg |

Air transport (ICAO-IATA / DGR)

| | | |
|-------------------------------------|---|----------------|
| UN number | 1564 | |
| UN proper shipping name | Barium compound, n.o.s. * | |
| Transport hazard class(es) | ICAO/IATA Class | 6.1 |
| | ICAO / IATA Subrisk | Not Applicable |
| | ERG Code | 6L |
| Packing group | III | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | Special provisions | A3 A82 |
| | Cargo Only Packing Instructions | 677 |
| | Cargo Only Maximum Qty / Pack | 200 kg |
| | Passenger and Cargo Packing Instructions | 670 |
| | Passenger and Cargo Maximum Qty / Pack | 100 kg |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y645 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 10 kg |

Sea transport (IMDG-Code / GGVSee)

| | | |
|-------------------------------------|-------------------------|----------------|
| UN number | 1564 | |
| UN proper shipping name | BARIUM COMPOUND, N.O.S. | |
| Transport hazard class(es) | IMDG Class | 6.1 |
| | IMDG Subrisk | Not Applicable |
| Packing group | III | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | EMS Number | F-A, S-A |
| | Special provisions | 177 223 274 |
| | Limited Quantities | 5 kg |

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

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|-----------------------------------|---------------|
| Barium carbonate, Technical grade | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|-----------------------------------|---------------|
| Barium carbonate, Technical grade | Not Available |

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture**

Barium carbonate, Technical grade is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -
Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)

National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (Barium carbonate, Technical grade) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | Yes |
| Japan - ENCS | Yes |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - FBEPH | Yes |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

SECTION 16 Other information

| | |
|----------------------|------------|
| Revision Date | 01/11/2019 |
| Initial Date | 01/11/2009 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|--|
| 3.1 | 14/03/2006 | Advice to Doctor, Chronic Health, Supplier Information, Transport, Name |
| 5.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit.
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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