



Ardex AF143 Ardex (Ardex NZ)

Chemwatch: 5492-22
Version No: 2.1.7.10
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 2

Issue Date: 08/09/2021
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S.GHS.NZL.EN

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

Product Identifier

| | |
|-------------------------------|---------------------------------------|
| Product name | Ardex AF143 |
| Chemical Name | Not Applicable |
| Synonyms | pressure sensitive for vinyl flooring |
| 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 | Pressure sensitive adhesive for resilient flooring. |
|--------------------------|---|

Details of the supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | Ardex (Ardex NZ) |
| Address | 32 Lane Street Woolston Christchurch New Zealand |
| Telephone | +64 3384 3029 |
| Fax | +64 3384 9779 |
| Website | www.ardex.co.nz |
| Email | info@ardexnz.com |

Emergency telephone number

| | |
|-----------------------------------|-----------------------|
| Association / Organisation | Ardex (Ardex NZ) |
| Emergency telephone numbers | +64 3 373 6900 |
| Other emergency telephone numbers | 0800 764 766 (NZ NPC) |

SECTION 2 Hazards identification

Classification of the substance or mixture

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Not regulated for transport of Dangerous Goods.


ChemWatch Hazard Ratings

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

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

| | |
|---|--|
| Classification [1] | Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |
| Determined by Chemwatch using GHS/HSNO criteria | 6.3A, 6.4A, 6.5B (contact) |

Label elements

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

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

Hazard statement(s)

| | |
|------|--------------------------------------|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |

Precautionary statement(s) Prevention

| | |
|------|--|
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P261 | Avoid breathing mist/vapours/spray. |
| P264 | Wash all exposed external body areas thoroughly after handling. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |

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. |
|------|--|

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|--|-----------|--|
| 8050-31-5 | 10-30 | <u>rosin acids, esters with glycerol</u> |
| 64742-53-6. | 1-10 | <u>naphthenic distillate, light, hydrotreated (severe)</u> |
| 68610-51-5 | <5 | <u>p-cresol/ dicyclopentadiene/ isobutylene</u> |
| 1310-58-3 | <1 | <u>potassium hydroxide</u> |
| 64742-52-5. | <1 | <u>naphthenic distillate, heavy, hydrotreated (severe)</u> |
| 2634-33-5 | <1 | <u>1,2-benzisothiazoline-3-one</u> |
| 2682-20-4 | <1 | <u>2-methyl-4-isothiazolin-3-one</u> |
| Not Available | balance | Ingredients determined not to be hazardous |
| Legend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 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 fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary. |
| Ingestion | <ul style="list-style-type: none"> ▶ 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. |

Continued...

- Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam.

Special hazards arising from the substrate or mixture

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

Advice for firefighters

| | |
|------------------------------|--|
| Fire Fighting | <ul style="list-style-type: none"> ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water courses. ▸ Use fire fighting procedures suitable for surrounding area. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▸ Non combustible. ▸ Not considered to be a significant fire risk. ▸ Expansion or decomposition on heating may lead to violent rupture of containers. ▸ Decomposes on heating and may produce toxic fumes of carbon monoxide (CO), carbon dioxide (CO₂) <p>other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.</p> |

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 goggles. ▸ Trowel up/scrape up. |
| Major Spills | <p>Minor hazard.</p> <ul style="list-style-type: none"> ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Control personal contact with the substance, by using protective equipment as required. |

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"> ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Prevent concentration in hollows and sumps. |
| 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. |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|---|
| Suitable container | <ul style="list-style-type: none"> ▸ Polyethylene or polypropylene container. ▸ Packing as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks. |
| Storage incompatibility | <ul style="list-style-type: none"> ▸ Avoid reaction with oxidising agents ▸ Avoid strong acids, bases. |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|--|---|---|----------------------|----------------------|---------------------|--|
| New Zealand Workplace Exposure Standards (WES) | rosin acids, esters with glycerol | Particulates not otherwise classified | 10 mg/m ³ | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | rosin acids, esters with glycerol | Particulates not otherwise classified respirable dust | 3 mg/m ³ | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | naphthenic distillate, light, hydrotreated (severe) | Oil mist, mineral | 5 mg/m ³ | 10 mg/m ³ | Not Available | om-Sampled by a method that does not collect vapour. |
| New Zealand Workplace Exposure Standards (WES) | potassium hydroxide | Potassium hydroxide | Not Available | Not Available | 2 mg/m ³ | Not Available |
| New Zealand Workplace Exposure Standards (WES) | naphthenic distillate, heavy, hydrotreated (severe) | Oil mist, mineral | 5 mg/m ³ | 10 mg/m ³ | Not Available | om-Sampled by a method that does not collect vapour. |

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|---|-------------------------|-------------------------|--------------------------|
| naphthenic distillate, light, hydrotreated (severe) | 1,100 mg/m ³ | 1,800 mg/m ³ | 40,000 mg/m ³ |
| potassium hydroxide | 0.18 mg/m ³ | 2 mg/m ³ | 54 mg/m ³ |
| naphthenic distillate, heavy, hydrotreated (severe) | 140 mg/m ³ | 1,500 mg/m ³ | 8,900 mg/m ³ |


| Ingredient | Original IDLH | Revised IDLH |
|---|-------------------------|---------------|
| rosin acids, esters with glycerol | Not Available | Not Available |
| naphthenic distillate, light, hydrotreated (severe) | 2,500 mg/m ³ | Not Available |
| p-cresol/ dicyclopentadiene/ isobutylene | Not Available | Not Available |
| potassium hydroxide | Not Available | Not Available |
| naphthenic distillate, heavy, hydrotreated (severe) | 2,500 mg/m ³ | Not Available |
| 1,2-benzisothiazoline-3-one | Not Available | Not Available |
| 2-methyl-4-isothiazolin-3-one | Not Available | Not Available |

Occupational Exposure Banding

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|--|-----------------------------------|-----------------------------------|
| p-cresol/ dicyclopentadiene/ isobutylene | E | ≤ 0.01 mg/m ³ |
| 1,2-benzisothiazoline-3-one | E | ≤ 0.01 mg/m ³ |
| 2-methyl-4-isothiazolin-3-one | D | > 0.01 to ≤ 0.1 mg/m ³ |

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Exposure controls

| | |
|---|--|
| Appropriate engineering controls | <p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p> |
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ 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. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream. ▶ Skin cleansing cream. |

Recommended material(s)**GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Ardex AF143

| Material | CPI |
|------------------|-----|
| BUTYL | A |
| NEOPRENE | A |
| NATURAL RUBBER | C |
| NATURAL+NEOPRENE | C |
| NEOPRENE/NATURAL | C |
| NITRILE | C |
| NITRILE+PVC | C |
| PE | C |
| PE/EVAL/PE | C |
| PVA | C |
| PVC | C |
| TEFLON | C |
| VITON | C |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type BAX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|---------------------------|
| up to 10 x ES | BAX-AUS P2 | - | BAX-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | BAX-AUS / Class 1 P2 | - |
| up to 100 x ES | - | BAX-2 P2 | BAX-PAPR-2 P2 ^ |

^ - Full-face

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)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties**Information on basic physical and chemical properties**

| | | | |
|---|------------------------------------|--|------------------------------|
| Appearance | Off white paste; mixes with water. | | |
| Physical state | Non Slump Paste | Relative density (Water = 1) | Not Available |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Applicable |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Applicable | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Applicable | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | 30 g/L(VOC as per Greenstar) |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water | Miscible | pH as a solution (%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 Stability and reactivity

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|---|--|
| Reactivity | See section 7 |
| Chemical stability | <ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ 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 | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
| Ingestion | The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. |
| Skin Contact | This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| Eye | This material can cause eye irritation and damage in some persons. |
| Chronic | Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Rosin (colophony) has caused allergic contact dermatitis in solderers using resin flux-cored solders, can be a sensitizer for strings instrument players, and has caused dermatitis after use in adhesive tapes [NIOSHTEC]. It is found in many products that commonly come in contact with the skin, including cosmetics, sunscreens, veterinary medications, adhesives, sealants, polishes, paints and oils. Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils. A number of common flavor and fragrance chemicals can form peroxides surprisingly fast in air. Antioxidants can in most cases minimize the oxidation. Fragrance terpenes are easily oxidized in air. Non-oxidised forms are very weak sensitizers; however, after oxidation, the hydroperoxides are strong sensitizers which may cause allergic reactions. Peroxidisable terpenes and terpenoids should only be used when the level of peroxides is kept to the lowest practicable level, for instance by adding antioxidants at the time of production. This should be less than 10 millimoles of peroxide per litre. This is because peroxides may have sensitizing properties. Based on experience with similar materials, there is a possibility that exposure to the material may reduce fertility in humans at levels which do not cause other toxic effects. Based on experience with animal studies, there is a possibility that exposure to the material may result in toxic effects to the development of the fetus, at levels which do not cause significant toxic effects to the mother. |

| Ardex AF143 | TOXICITY | IRRITATION |
|---|--|---|
| | Not Available | Not Available |
| rosin acids, esters with glycerol | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Oral(Rat) LD50; >2000 mg/kg ^[1] | Skin: no adverse effect observed (not irritating) ^[1] |
| naphthenic distillate, light, hydrotreated (severe) | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Inhalation(Rat) LC50; 2.18 mg/l4h ^[2] | Skin: no adverse effect observed (not irritating) ^[1] |
| | Oral(Rat) LD50; >5000 mg/kg ^[2] | |
| p-cresol/ dicyclopentadiene/ isobutylene | TOXICITY | IRRITATION |
| | dermal (rat) LD50: >2000 mg/kg ^[1] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Inhalation(Rat) LC50; >40.75 mg/l4h ^[2] | Skin: adverse effect observed (irritating) ^[1] |
| | Oral(Rat) LD50; >200 mg/kg ^[2] | Skin: no adverse effect observed (not irritating) ^[1] |
| potassium hydroxide | TOXICITY | IRRITATION |
| | Oral(Rat) LD50; 214-324 mg/kg ^[2] | Eye (rabbit):1mg/24h rinse-moderate |
| | | Skin (human): 50 mg/24h SEVERE |
| | | Skin (rabbit): 50 mg/24h SEVERE |
| naphthenic distillate, heavy, hydrotreated (severe) | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Inhalation(Rat) LC50; 2.18 mg/l4h ^[2] | Skin: no adverse effect observed (not irritating) ^[1] |
| | Oral(Rat) LD50; >5000 mg/kg ^[2] | |
| 1,2-benzisothiazoline-3-one | TOXICITY | IRRITATION |
| | dermal (rat) LD50: >2000 mg/kg ^[1] | Eye: adverse effect observed (irreversible damage) ^[1] |
| | Oral(Rat) LD50; 454 mg/kg ^[1] | Skin: no adverse effect observed (not irritating) ^[1] |

| | TOXICITY | IRRITATION |
|-------------------------------|--|---|
| 2-methyl-4-isothiazolin-3-one | dermal (rat) LD50: 242 mg/kg ^[1] | Eye: adverse effect observed (irreversible damage) ^[1] |
| | Inhalation(Rat) LC50; 0.1 mg/4h ^[1] | Skin: adverse effect observed (corrosive) ^[1] |
| | Oral(Rat) LD50; 120 mg/kg ^[1] | |

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

| | |
|---|---|
| P-CRESOL/ DICYCLOPENTADIENE/ ISOBUTYLENE | Data show that acute toxicity following oral and topical use of hindered phenols is low. They are not proven to cause mutations. However, long term use may affect the liver, thyroid, kidney and lymph nodes. Liver tumours have been reported. Acute toxicity . Acute oral and dermal toxicity data are available and show that the substance is not acutely toxic. Repeated Dose Toxicity: A 90-day feeding study in rats is available for 4-methylphenol, reaction products with dicyclopentadiene and isobutylene. Limited toxicity was observed at the higher doses. Liver weights were increased in rats of both sexes at doses of 1500 ppm and higher and adrenal weights were higher in females at 1500 ppm. Microscopic examination of tissues showed no microscopic lesion associated with the organ weight effects. Reproductive and Developmental Toxicity.: A developmental toxicity study in rats is available. The substance was not teratogenic, but did show a slight increase in the incidence of common foetal skeletal variations. Reproduction studies with 4-methylphenol, reaction products with dicyclopentadiene and isobutylene are not available, however, the 90-day repeated-dose oral toxicity study included evaluation of male and female reproductive organs. No adverse effects on reproductive organs were observed. A NOAEL for material toxicity was established at 1000 mg/kg/day and a benchmark dose (BMD) at the ED05 was determined for the fetal variations at 740 mg/kg/day. Genotoxicity. In vitro gene mutation assays and in vitro chromosome aberrations assays are available. All mutagenicity tests were negative |
| POTASSIUM HYDROXIDE | The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. |
| NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) | Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. |
| 1,2-BENZISOTHIAZOLINE-3-ONE | The predominant fate of the thiazole ring is oxidative ring scission catalysed by cytochrome P450 (CYP) and formation of the corresponding alpha-dicarbonyl metabolites and thioamide derivatives. The well-established toxicity associated with thioamides and thioureas has led to the speculation that thiazole toxicity is attributed to ring scission yielding the corresponding thioamide metabolite. Ring opening has also been observed in benzothiazoles. For instance, benzothiazole itself is converted to S-methylmercaptoaniline. Acute toxicity data show that 1,2-benzisothiazoline-3-one (BIT) is moderately toxic by the oral and dermal routes but that this chemical is a severe eye irritant. Irritation to the skin from acute data show only mild skin irritation , but repeated dermal application indicated a more significant skin irritation response. The neurotoxicity observed in the rat acute oral toxicity study (piloerection and upward curvature of the spine at 300 mg/kg and above; decreased activity, prostration, decreased abdominal muscle tone, reduced righting reflex, and decreased rate and depth of breathing at 900 mg/kg) and the acute dermal toxicity study (upward curvature of the spine was observed in increased incidence, but this was absent after day 5 post-dose at a dose of 2000 mg/kg) were felt to be at exposures in excess of those expected from the use pattern of this pesticide and that such effects would not be observed at estimated exposure doses. Subchronic oral toxicity studies showed systemic effects after repeated oral administration including decreased body weight, increased incidence of forestomach hyperplasia, and non-glandular stomach lesions in rats. In dogs, the effects occurred at lower doses than in rats, and included alterations in blood chemistry (decreased plasma albumin, total protein, and alanine aminotransferase) and increased absolute liver weight. Developmental toxicity studies were conducted in rats with maternal effects including decreased body weight gain, decreased food consumption, and clinical toxicity signs (audible breathing, haircoat staining of the anogenital region, dry brown material around the nasal area) as well as increased mortality. Developmental effects consisted of increases in skeletal abnormalities (extra sites of ossification of skull bones, unossified sternbrae) but not external or visceral abnormalities. Reproductive toxicity: In a two- generation reproduction study, parental toxicity was observed at 500 ppm and was characterized by lesions in the stomach. |
| 2-METHYL- 4-ISOTHIAZOLIN-3-ONE | The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Formaldehyde generators (releasers) are often used as preservatives. The maximum authorised concentration of free formaldehyde is 0.2% and must be labelled with the warning sign "contains formaldehyde" where the concentration exceeds 0.05%. The use of formaldehyde-releasing preservatives ensures that the level of free formaldehyde in the products is always low but sufficient to inhibit microbial growth - it disrupts metabolism to cause death of the organism. However there is a concern that formaldehyde generators can produce amines capable of causing cancers (nitrosamines) when used in formulations containing amines. Considered to be a minor sensitiser in Kathon CG (1) (1). Bruze et al - Contact Dermatitis 20: 219-39, 1989 |
| NAPHTHENIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE) & NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) | The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives; The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since: <ul style="list-style-type: none"> The adverse effects of these materials are associated with undesirable components, and The levels of the undesirable components are inversely related to the degree of processing; Distillate base oils receiving the same degree or extent of processing will have similar toxicities; The potential toxicity of residual base oils is independent of the degree of processing the oil receives. The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size. Toxicity testing has consistently shown that lubricating base oils have low acute toxicities. For highly and severely refined distillate base oils: In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from "non-irritating" to "moderately irritating" when tested for skin and eye irritation. Testing for sensitisation has been negative. The substance is classified by IARC as Group 3: |

| | |
|---|--|
| | NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. |
| P-CRESOL/ DICYCLOPENTADIENE/ ISOBUTYLENE & POTASSIUM HYDROXIDE & 2-METHYL- 4-ISOTHIAZOLIN-3-ONE | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. |
| NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) & 2-METHYL- 4-ISOTHIAZOLIN-3-ONE | Based on laboratory and animal testing, exposure to the material may result in irreversible effects and mutations in humans. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. |
| NAPHTHENIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) & 1,2-BENZISOTHIAZOLINE-3-ONE & 2-METHYL- 4-ISOTHIAZOLIN-3-ONE | No significant acute toxicological data identified in literature search. |
| 1,2-BENZISOTHIAZOLINE-3-ONE & 2-METHYL- 4-ISOTHIAZOLIN-3-ONE | The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. In light of potential adverse effects, and to ensure a harmonised risk assessment and management, the EU regulatory framework for biocides has been established with the objective of ensuring a high level of protection of human and animal health and the environment. To this aim, it is required that risk assessment of biocidal products is carried out before they can be placed on the market. A central element in the risk assessment of the biocidal products are the utilization instructions that defines the dosage, application method and amount of applications and thus the exposure of humans and the environment to the biocidal substance. Humans may be exposed to biocidal products in different ways in both occupational and domestic settings. Many biocidal products are intended for industrial sectors or professional uses only, whereas other biocidal products are commonly available for private use by non-professional users. |

| | | | |
|--|---|---------------------------------|---|
| 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

| Ardex AF143 | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---------------|-------------------------------|-------------------------------|---------------|---------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| rosin acids, esters with glycerol | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 48h | Crustacea | 259mg/l | 1 |
| | EC50 | 72h | Algae or other aquatic plants | >1000mg/l | 1 |
| | LC50 | 96h | Fish | >400mg/l | 2 |
| EC50 | 48h | Crustacea | 259mg/l | 1 | |
| naphthenic distillate, light, hydrotreated (severe) | Endpoint | Test Duration (hr) | Species | Value | Source |
| | ErC50 | 72h | Algae or other aquatic plants | >1000mg/l | 1 |
| | NOEC(ECx) | 504h | Crustacea | >1mg/l | 1 |
| | EC50 | 48h | Crustacea | >1000mg/l | 1 |
| EC50 | 96h | Algae or other aquatic plants | >1000mg/l | 1 | |
| p-cresol/ dicyclopentadiene/ isobutylene | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50(ECx) | 48h | Crustacea | >0.2mg/l | 1 |
| | EC50 | 72h | Algae or other aquatic plants | >0.2mg/l | 1 |
| | LC50 | 96h | Fish | >0.2mg/l | 2 |
| EC50 | 48h | Crustacea | >0.2mg/l | 1 | |
| potassium hydroxide | Endpoint | Test Duration (hr) | Species | Value | Source |
| | LC50 | 96h | Fish | 80mg/l | 2 |
| NOEC(ECx) | 24h | Fish | 28mg/l | 2 | |

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|----------------|---|--------------------|-------------------------------|-------------------------------|-----------------|
| | naphthenic distillate, heavy, hydrotreated (severe) | ErC50 | 72h | Algae or other aquatic plants | >1000mg/l |
| NOEC(ECx) | | 504h | Crustacea | >1mg/l | 1 |
| EC50 | | 48h | Crustacea | >1000mg/l | 1 |
| EC50 | | 96h | Algae or other aquatic plants | >1000mg/l | 1 |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | 1,2-benzisothiazoline-3-one | LC50 | 96h | Fish | 0.067-0.29mg/L |
| EC50 | | 48h | Crustacea | 0.097mg/L | 4 |
| EC50(ECx) | | 48h | Crustacea | 0.097mg/L | 4 |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | 2-methyl-4-isothiazolin-3-one | LC50 | 96h | Fish | 0.081-0.122mg/L |
| EC50 | | 48h | Crustacea | 0.189-0.257mg/L | 4 |
| NOEC(ECx) | | 96h | Algae or other aquatic plants | 0.01mg/l | 2 |
| EC50 | | 96h | Algae or other aquatic plants | 0.063mg/l | 2 |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 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 |
|-------------------------------|-------------------------|------------------|
| 2-methyl-4-isothiazolin-3-one | HIGH | HIGH |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-------------------------------|------------------------|
| 2-methyl-4-isothiazolin-3-one | LOW (LogKOW = -0.8767) |

Mobility in soil

| Ingredient | Mobility |
|-------------------------------|-------------------|
| 2-methyl-4-isothiazolin-3-one | LOW (KOC = 27.88) |

SECTION 13 Disposal considerations

Waste treatment methods

| | |
|-------------------------------------|---|
| Product / Packaging disposal | <ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible or consult manufacturer for recycling options. ▶ Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site. ▶ Recycle containers if possible, or dispose of in an authorised landfill. |
|-------------------------------------|---|

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

SECTION 14 Transport information

Labels Required

| | |
|------------------|----------------|
| Marine Pollutant | NO |
| HAZCHEM | Not Applicable |

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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 |
|---|---------------|
| rosin acids, esters with glycerol | Not Available |
| naphthenic distillate, light, hydrotreated (severe) | Not Available |
| p-cresol/ dicyclopentadiene/ isobutylene | Not Available |
| potassium hydroxide | Not Available |
| naphthenic distillate, heavy, hydrotreated (severe) | Not Available |
| 1,2-benzisothiazoline-3-one | Not Available |
| 2-methyl-4-isothiazolin-3-one | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|---|---------------|
| rosin acids, esters with glycerol | Not Available |
| naphthenic distillate, light, hydrotreated (severe) | Not Available |
| p-cresol/ dicyclopentadiene/ isobutylene | Not Available |
| potassium hydroxide | Not Available |
| naphthenic distillate, heavy, hydrotreated (severe) | Not Available |
| 1,2-benzisothiazoline-3-one | Not Available |
| 2-methyl-4-isothiazolin-3-one | Not Available |

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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard |
|------------|---|
| HSR002544 | Construction Products Subsidiary Hazard Group Standard 2020 |

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

rosin acids, esters with glycerol is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

naphthenic distillate, light, hydrotreated (severe) is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

p-cresol/ dicyclopentadiene/ isobutylene is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

potassium hydroxide is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

naphthenic distillate, heavy, hydrotreated (severe) is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

1,2-benzisothiazoline-3-one is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

2-methyl-4-isothiazolin-3-one is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Quantities |
|----------------|----------------|
| Not Applicable | Not Applicable |

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities |
|--------------------|----------------|
| Not Applicable | Not Applicable |

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Gas (aggregate water capacity in mL) | Liquid (L) | Solid (kg) | Maximum quantity per package for each classification |
|--------------|--------------------------------------|------------|------------|--|
| 6.5A or 6.5B | 120 | 1 | 3 | |

Tracking Requirements

Not Applicable

National Inventory Status

| National Inventory | Status |
|--|---|
| Australia - AIIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (rosin acids, esters with glycerol; naphthenic distillate, light, hydrotreated (severe); p-cresol/ dicyclopentadiene/ isobutylene; potassium hydroxide; naphthenic distillate, heavy, hydrotreated (severe); 1,2-benzisothiazoline-3-one; 2-methyl-4-isothiazolin-3-one) |
| 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 | No (rosin acids, esters with glycerol; naphthenic distillate, light, hydrotreated (severe); p-cresol/ dicyclopentadiene/ isobutylene) |
| 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 | 08/09/2021 |
| Initial Date | 08/09/2021 |

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
 AIIIC: 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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