



RCRA Target Phenols Mix

Novachem Pty Ltd

Version No: 3.2

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

Chemwatch Hazard Alert Code: 4

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S.GHS.AUS.EN

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

Product Identifier

Product name	RCRA Target Phenols Mix
Synonyms	M-8041
Proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)
Other means of identification	M-8041

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

Relevant identified uses	Laboratory Chemical Reference Material
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Details of the manufacturer or supplier of the safety data sheet

Registered company name	Novachem Pty Ltd	Novachem Pty Ltd
Address	25 Crissane Road, Heidelberg West Victoria 3081 Australia	25 Crissane Road, Heidelberg West Victoria 3081 Australia
Telephone	+61384151255	+61384151255
Fax	+61386250088	+61386250088
Website	www.novachem.com.au	www.novachem.com.au
Email	novachem@novachem.com.au	novachem@novachem.com.au

Emergency telephone number

Association / Organisation	Victorian Poisons Information Centre	Victorian Poisons Information Centre
Emergency telephone numbers	13 11 26	13 11 26
Other emergency telephone numbers	Not Available	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification [1]	Flammable Liquids Category 2, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 3
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	Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

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Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.

Precautionary statement(s) Response

P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
59-50-7	0.1	<u>4-chloro-m-cresol</u>
95-57-8	0.1	<u>o-chlorophenol</u>
131-89-5	0.1	<u>dinex</u>
120-83-2	0.1	<u>2,4-dichlorophenol</u>
87-65-0	0.1	<u>2,6-dichlorophenol</u>
105-67-9	0.1	<u>2,4-xyleneol</u>
88-85-7	0.1	<u>dinoseb</u>
51-28-5	0.1	<u>2,4-dinitrophenol</u>
534-52-1	0.1	<u>dinitro-o-cresol</u>
95-48-7	0.1	<u>o-cresol</u>
108-39-4	0.1	<u>m-cresol</u>
106-44-5	0.1	<u>p-cresol</u>
88-75-5	0.1	<u>o-nitrophenol</u>
100-02-7	0.1	<u>p-nitrophenol</u>
87-86-5	0.1	<u>pentachlorophenol</u>
108-95-2	0.1	<u>phenol</u>
4901-51-3*	0.1	<u>2,3,4,5-Tetrachlorophenol</u>
58-90-2	0.1	<u>2,3,4,6-tetrachlorophenol</u>
935-95-5	0.1	<u>2,3,5,6-tetrachlorophenol</u>
95-95-4	0.1	<u>2,4,5-trichlorophenol</u>
88-06-2	0.1	<u>2,4,6-trichlorophenol</u>
67-63-0	97.9	<u>isopropanol</u>

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).

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	<ul style="list-style-type: none"> ▶ Seek medical attention in event of irritation. <p>For thermal burns:</p> <ul style="list-style-type: none"> ▶ Decontaminate area around burn. ▶ Consider the use of cold packs and topical antibiotics. <p>For first-degree burns (affecting top layer of skin)</p> <ul style="list-style-type: none"> ▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. ▶ Use compresses if running water is not available. ▶ Cover with sterile non-adhesive bandage or clean cloth. ▶ Do NOT apply butter or ointments; this may cause infection. ▶ Give over-the counter pain relievers if pain increases or swelling, redness, fever occur. <p>For second-degree burns (affecting top two layers of skin)</p> <ul style="list-style-type: none"> ▶ Cool the burn by immerse in cold running water for 10-15 minutes. ▶ Use compresses if running water is not available. ▶ Do NOT apply ice as this may lower body temperature and cause further damage. ▶ Do NOT break blisters or apply butter or ointments; this may cause infection. ▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape. <p>To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):</p> <ul style="list-style-type: none"> ▶ Lay the person flat. ▶ Elevate feet about 12 inches. ▶ Elevate burn area above heart level, if possible. ▶ Cover the person with coat or blanket. ▶ Seek medical assistance. <p>For third-degree burns Seek immediate medical or emergency assistance.</p> <p>In the mean time:</p> <ul style="list-style-type: none"> ▶ Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. ▶ Separate burned toes and fingers with dry, sterile dressings. ▶ Do not soak burn in water or apply ointments or butter; this may cause infection. ▶ To prevent shock see above. ▶ For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. ▶ Have a person with a facial burn sit up. ▶ Check pulse and breathing to monitor for shock until emergency help arrives.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor, without delay.
Ingestion	<ul style="list-style-type: none"> ▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short term repeated exposures to isopropanol:

- ▶ Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- ▶ Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.
- ▶ There are no antidotes.
- ▶ Management is supportive. Treat hypotension with fluids followed by vasopressors.
- ▶ Watch closely, within the first few hours for respiratory depression; follow arterial blood gases and tidal volumes.
- ▶ Ice water lavage and serial haemoglobin levels are indicated for those patients with evidence of gastrointestinal bleeding.

SECTION 5 Firefighting measures**Extinguishing media**

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. <p>Combustion products include:</p>

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	carbon dioxide (CO ₂) other pyrolysis products typical of burning organic material. WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides.
HAZCHEM	*2YE

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"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment.
Major Spills	<ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves.

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"> ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▶ 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. ▶ DO NOT allow clothing wet with material to stay in contact with skin
Other information	<ul style="list-style-type: none"> ▶ Store in original containers in approved flame-proof area. ▶ No smoking, naked lights, heat or ignition sources. ▶ DO NOT store in pits, depression, basement or areas where vapours may be trapped. ▶ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ DO NOT use aluminium or galvanised containers ▶ Packing as supplied by manufacturer. ▶ Plastic containers may only be used if approved for flammable liquid. ▶ Check that containers are clearly labelled and free from leaks. ▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. ▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C) ▶ For manufactured product having a viscosity of at least 250 cSt.
Storage incompatibility	<p>Isopropanol (syn: isopropyl alcohol, IPA):</p> <ul style="list-style-type: none"> ▶ forms ketones and unstable peroxides on contact with air or oxygen; the presence of ketones especially methyl ethyl ketone (MEK, 2-butanone) will accelerate the rate of peroxidation ▶ reacts violently with strong oxidisers, powdered aluminium (exothermic), crotonaldehyde, diethyl aluminium bromide (ignition), dioxygenyl tetrafluoroborate (ignition/ ambient temperature), chromium trioxide (ignition), potassium-tert-butoxide (ignition), nitroform (possible explosion), oleum (pressure increased in closed container), cobalt chloride, aluminium triisopropoxide, hydrogen plus palladium dust (ignition), oxygen gas, phosgene, phosgene plus iron salts (possible explosion), sodium dichromate plus sulfuric acid (exothermic/ incandescence), triisobutyl aluminium ▶ reacts with phosphorus trichloride forming hydrogen chloride gas ▶ reacts, possibly violently, with alkaline earth and alkali metals, strong acids, strong caustics, acid anhydrides, halogens, aliphatic amines, aluminium isopropoxide, isocyanates, acetaldehyde, barium perchlorate (forms highly explosive perchloric ester compound), benzoyl peroxide, chromic acid, dialkylzincs, dichlorine oxide, ethylene oxide (possible explosion), hexamethylene diisocyanate (possible explosion), hydrogen peroxide (forms explosive compound), hypochlorous acid, isopropyl chlorocarbonate, lithium aluminium hydride, lithium tetrahydroaluminate, nitric acid, nitrogen dioxide, nitrogen tetroxide (possible explosion), pentafluoroguanidine, perchloric acid (especially hot), permonosulfuric acid, phosphorus pentasulfide, tangerine oil, triethylaluminium, triisobutylaluminium, trinitromethane ▶ attacks some plastics, rubber and coatings ▶ reacts with metallic aluminium at high temperature ▶ may generate electrostatic charges <p>Dinitro-o-cresol:</p> <ul style="list-style-type: none"> ▶ is thermally unstable; elevated temperatures may cause explosion - may be moistened with up to 10% water or may be provided as a paste with 55-60% water, to reduce this risk ▶ is incompatible with heat, strong oxidisers, amines, cresols, hydrocarbons, phenols ▶ is stable at low pH but decomposes upon UV radiation in alkaline solutions ▶ segregation from heavy metals and their salts is required.

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Alcohols

- ▶ are incompatible with strong acids, acid chlorides, acid anhydrides, oxidising and reducing agents.
- ▶ reacts, possibly violently, with alkaline metals and alkaline earth metals to produce hydrogen
- ▶ react with strong acids, strong caustics, aliphatic amines, isocyanates, acetaldehyde, benzoyl peroxide, chromic acid, chromium oxide, dialkylzincs, dichlorine oxide, ethylene oxide, hypochlorous acid, isopropyl chlorocarbonate, lithium tetrahydroaluminate, nitrogen dioxide, pentafluoroguanidine, phosphorus halides, phosphorus pentasulfide, tangerine oil, triethylaluminium, trisobutylaluminium
- ▶ should not be heated above 49 deg. C. when in contact with aluminium equipment

Secondary alcohols and some branched primary alcohols may produce potentially explosive peroxides after exposure to light and/ or heat.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	dinitro-o-cresol	Dinitro-o-cresol	0.2 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	o-cresol	Cresol, all isomers	5 ppm / 22 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	m-cresol	Cresol, all isomers	5 ppm / 22 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	p-cresol	Cresol, all isomers	5 ppm / 22 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	pentachlorophenol	Pentachlorophenol	0.5 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	phenol	Phenol	1 ppm / 4 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	isopropanol	Isopropyl alcohol	400 ppm / 983 mg/m3	1230 mg/m3 / 500 ppm	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
4-chloro-m-cresol	5.5 mg/m3	60 mg/m3	360 mg/m3
o-chlorophenol	2.3 mg/m3	25 mg/m3	150 mg/m3
2,4-dichlorophenol	Not Available	Not Available	Not Available
2,6-dichlorophenol	8.8 mg/m3	97 mg/m3	580 mg/m3
2,4-xylenol	6.9 mg/m3	76 mg/m3	460 mg/m3
dinoseb	0.41 mg/m3	4.5 mg/m3	5.4 mg/m3
2,4-dinitrophenol	0.61 mg/m3	6.8 mg/m3	16 mg/m3
dinitro-o-cresol	0.6 mg/m3	0.83 mg/m3	5 mg/m3
o-cresol	14 ppm	25 ppm	250 ppm
m-cresol	14 ppm	25 ppm	250 ppm
p-cresol	14 ppm	25 ppm	250 ppm
o-nitrophenol	2.1 mg/m3	23 mg/m3	140 mg/m3
p-nitrophenol	0.69 mg/m3	7.6 mg/m3	46 mg/m3
pentachlorophenol	1 mg/m3	15 mg/m3	150 mg/m3
phenol	Not Available	Not Available	Not Available
2,4,5-trichlorophenol	2.5 mg/m3	27 mg/m3	160 mg/m3
2,4,6-trichlorophenol	2.5 mg/m3	27 mg/m3	160 mg/m3
isopropanol	400 ppm	2000* ppm	12000** ppm

Ingredient	Original IDLH	Revised IDLH
4-chloro-m-cresol	Not Available	Not Available
o-chlorophenol	Not Available	Not Available
dinex	Not Available	Not Available
2,4-dichlorophenol	Not Available	Not Available
2,6-dichlorophenol	Not Available	Not Available
2,4-xylenol	Not Available	Not Available
dinoseb	Not Available	Not Available
2,4-dinitrophenol	Not Available	Not Available
dinitro-o-cresol	5 mg/m3	Not Available
o-cresol	250 ppm	Not Available
m-cresol	250 ppm	Not Available
p-cresol	250 ppm	Not Available
o-nitrophenol	Not Available	Not Available
p-nitrophenol	Not Available	Not Available
pentachlorophenol	2.5 mg/m3	Not Available
phenol	250 ppm	Not Available
2,3,4,5-Tetrachlorophenol	Not Available	Not Available
2,3,4,6-tetrachlorophenol	Not Available	Not Available

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Ingredient	Original IDLH	Revised IDLH
2,3,5,6-tetrachlorophenol	Not Available	Not Available
2,4,5-trichlorophenol	Not Available	Not Available
2,4,6-trichlorophenol	Not Available	Not Available
isopropanol	2,000 ppm	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
4-chloro-m-cresol	D	> 0.01 to ≤ 0.1 mg/m ³
dinex	E	≤ 0.01 mg/m ³
2,4-dichlorophenol	E	≤ 0.01 mg/m ³
2,6-dichlorophenol	D	> 0.01 to ≤ 0.1 mg/m ³
dinoseb	E	≤ 0.01 mg/m ³
2,4-dinitrophenol	E	≤ 0.01 mg/m ³
o-nitrophenol	E	≤ 0.01 mg/m ³
p-nitrophenol	E	≤ 0.01 mg/m ³
2,3,4,6-tetrachlorophenol	E	≤ 0.01 mg/m ³
2,3,5,6-tetrachlorophenol	E	≤ 0.01 mg/m ³
2,4,5-trichlorophenol	E	≤ 0.01 mg/m ³
2,4,6-trichlorophenol	E	≤ 0.01 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. 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>
Individual protection measures, such as personal protective equipment	
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ 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. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent] ▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent] ▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely. ▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. ▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.

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- ▶ Overalls.
- ▶ PVC Apron.
- ▶ PVC protective suit may be required if exposure severe.
- ▶ Eyewash unit.
- ▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- ▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).
- ▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.

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:
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Material	CPI
BUTYL	C
BUTYL/NEOPRENE	C
NAT+NEOPR+NITRILE	C
NATURAL RUBBER	C
NATURAL+NEOPRENE	C
NEOPRENE	C
NEOPRENE/NATURAL	C
NITRILE	C
NITRILE+PVC	C
PE/EVAL/PE	C
PVA	C
PVC	C
TEFLON	C
VITON	C
VITON/NEOPRENE	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 A-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	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-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	Clear liquid		
Physical state	Liquid	Relative density (Water = 1)	0.785
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	425
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	-89.5	Viscosity (cSt)	2.27 Pas (20 °C)
Initial boiling point and boiling range (°C)	82.4	Molecular weight (g/mol)	Not Available
Flash point (°C)	12 (CC)	Taste	Not Available
Evaporation rate	2.88 BuAC = 1	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	12.7	Surface Tension (dyn/cm or mN/m)	Not Available

Continued...

RCRA Target Phenols Mix

Lower Explosive Limit (%)	2	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	4.399 (20 °C)	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	2.07	VOC g/L	Not Available

SECTION 10 Stability and reactivity

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	<p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Aliphatic alcohols with more than 3-carbons cause headache, dizziness, drowsiness, muscle weakness and delirium, central depression, coma, seizures and behavioural changes. Secondary respiratory depression and failure, as well as low blood pressure and irregular heart rhythms, may follow.</p> <p>Most deaths caused by DNOC have occurred when exposure occurred both by inhalation and skin contact, and most incidents involved agricultural workers, at concentrations greater than 2.5 mg/m3. Chief symptoms included fever, rapid pulse and breathing, profuse sweating, shortness of breath and cough.</p> <p>The odour of isopropanol may give some warning of exposure, but odour fatigue may occur. Inhalation of isopropanol may produce irritation of the nose and throat with sneezing, sore throat and runny nose.</p> <p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p>
Ingestion	<p>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)</p> <p>Overexposure to non-ring alcohols causes nervous system symptoms. These include headache, muscle weakness and inco-ordination, giddiness, confusion, delirium and coma.</p> <p>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.</p> <p>DNC did not seem to cause poisoning after one-time exposure, but swallowing it repeatedly has caused tiredness and malaise.</p> <p>Swallowing 10 millilitres of isopropanol may cause serious injury; 100 millilitres may be fatal if not properly treated. The adult single lethal dose is approximately 250 millilitres. Isopropanol is twice as poisonous as ethanol, and the effects caused are similar, except that isopropanol does not cause an initial feeling of well-being. Swallowing may cause nausea, vomiting and diarrhea; vomiting and stomach inflammation is more prominent with isopropanol than with ethanol.</p>
Skin Contact	<p>This material can cause inflammation of the skin on contact in some persons.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Most liquid alcohols appear to act as primary skin irritants in humans. Significant percutaneous absorption occurs in rabbits but not apparently in man.</p> <p>Although irritation is usually slight, lethal doses may be absorbed through the skin. Nail damage with a white material around the nail folds, which may swell, may occur. In a lethal case, the first symptoms were vomiting and headache, followed by jaundice (especially on the limbs), fast and weak heartbeat and a general depression. Autopsy showed bleeding in the gut and blood congestion in the brain, liver, lung, gut wall, heart muscle and kidneys, as well as fluid build-up in the lung and heart.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p> <p>511ipa</p>
Eye	<p>This material can cause eye irritation and damage in some persons.</p> <p>Isopropanol vapour may cause mild eye irritation at 400 parts per million. Splashes may cause severe eye irritation, possible burns to the cornea and eye damage. Eye contact may cause tearing and blurring of vision.</p>
Chronic	<p>Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.</p> <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>There is sufficient evidence to suggest that this material directly causes cancer in humans.</p> <p>Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited.</p> <p>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p>

RCRA Target Phenols Mix

	<p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. DNOC is a cumulative poison in humans but not in animals. When blood levels of DNOC exceed 15-20 ug/g symptoms of poisoning appear.</p> <p>These levels indicate considerable accumulation from repeated, daily exposure because the blood levels found were in excess of the amount attainable from a single, daily dose.</p> <p>Long term, or repeated exposure of isopropanol may cause inco-ordination and tiredness.</p> <p>Repeated inhalation exposure to isopropanol may produce sleepiness, inco-ordination and liver degeneration. Animal data show developmental effects only at exposure levels that produce toxic effects in adult animals. Isopropanol does not cause genetic damage.</p>	
RCRA Target Phenols Mix	TOXICITY	IRRITATION
	Not Available	Not Available
4-chloro-m-cresol	TOXICITY	IRRITATION
	Not Available	Not Available
o-chlorophenol	TOXICITY	IRRITATION
	Not Available	Eye: adverse effect observed (irreversible damage) ^[1] Skin: adverse effect observed (corrosive) ^[1]
dinex	TOXICITY	IRRITATION
	Not Available	Skin (rabbit):105 mg/9d-I-mod
2,4-dichlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
2,6-dichlorophenol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 0.25 mg/24h-SEVERE Skin (rabbit): 2 mg/24h - SEVERE
2,4-xylenol	TOXICITY	IRRITATION
	Not Available	Not Available
dinoseb	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 50 mg/24h - SEVERE
2,4-dinitrophenol	TOXICITY	IRRITATION
	Not Available	Not Available
dinitro-o-cresol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 20 mg/24h - moderate Skin (rabbit):105 mg/9d -I- mild
o-cresol	TOXICITY	IRRITATION
	Not Available	Not Available
m-cresol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 103 mg SEVERE Skin (rabbit): 517 mg/24h SEVERE
p-cresol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 103 mg SEVERE Skin (rabbit): 517 mg/24h SEVERE
o-nitrophenol	TOXICITY	IRRITATION
	Not Available	Not Available
p-nitrophenol	TOXICITY	IRRITATION
	Not Available	Not Available
pentachlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
phenol	TOXICITY	IRRITATION
	Not Available	Eye(rabbit): 100 mg rinse - mild Eye(rabbit): 5 mg - SEVERE

RCRA Target Phenols Mix

		Skin(rabbit): 500 mg open -SEVERE
		Skin(rabbit): 500 mg/24hr - SEVERE
2,3,4,5-Tetrachlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
2,3,4,6-tetrachlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
2,3,5,6-tetrachlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
2,4,5-trichlorophenol	TOXICITY	IRRITATION
	Not Available	Not Available
2,4,6-trichlorophenol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 0.25 mg/24h-SEVERE Skin (rabbit): 20 mg/24h-moderate
isopropanol	TOXICITY	IRRITATION
	Not Available	Eye (rabbit): 10 mg - moderate
		Eye (rabbit): 100 mg - SEVERE
		Eye (rabbit): 100mg/24hr-moderate Skin (rabbit): 500 mg - mild
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	

4-CHLORO-M-CRESOL	<p>Side effects are generally few but can include skin irritation It may be used mixed with water or alcohol.] Chloroxylenol is most effective against gram-positive bacteria. It works by disruption of the cell wall and stopping the function of enzymes</p> <p>Chloroxylenol is generally slightly to moderately toxic to humans (but highly toxic for the eyes, causing severe eye irritation),is practically non-toxic to birds, and is moderately toxic to freshwater invertebrates. It is highly toxic to fish, cats, and some amphibians and should not be used around them.[It is a mild skin irritant and may trigger allergic reactions in some individuals</p> <p>Humans</p> <p>Excessive exposure to chloroxylenol has the potential for causing death. It can be poisonous when swallowed and even when it is unintentionally inhaled.</p> <p>Prolonged or repeated use of antibiotics, at therapeutic doses, may produce bacterial resistance for some types of bacteria. Prolonged use may result in the overgrowth of non-susceptible organisms (i.e. for 4-chloro-o-cresol (syn:4-chloro-2-methylphenol, PCOC)</p> <p>Acute toxicity: PCOC is corrosive and toxic by inhalation but is only moderately toxic in acute mammalian tests by other routes. The substance is not a skin sensitizer. In an OECD screening test 422, PCOC did not cause reproductive effects in rats.</p> <p>Repeat dose toxicity: Tests for repeated dose toxicity suggest an NOAEL of 200 mg/kg and a LOAEL of 800/mg/kg (slight liver toxicity and decrease in haemoglobin concentration in the blood).</p> <p>Repeat dose toxicity is not likely to present a major health problem. The margin of safety for workers based on a NOAEL of 200 mg/kg/day is 200/0.7 = 285.</p>
2,4-DICHLOROPHENOL	IARC Cancer Review: Human Limited Evidence. 2,4-dichlorophenol (2,4-DCP) does not accumulate in tissues. It has low acute oral toxicity and moderate toxicity via skin contact. Contact with even 1% of the body surface may lead to death. It is corrosive to skin and may serious damage the eyes.
2,4-XYLENOL	Tumorigenic - Carcinogenic by RTECS criteria
DINOSEB	Reproductive effector in rats. Equivocal tumorigen by RTECS criteria Dinoseb is high toxic if swallowed, and on skin exposure. Inhaling dusts and sprays may be irritating to the lungs and eyes, and may cause serious illness. Direct skin contact may cause irritation, yellow stains, burns, inflammation of the skin and more serious effects in humans; death has occurred. Accidental exposure in humans has caused fatigue, thirst, sweating, sleeplessness, weight loss, headache, flushing of the face, nausea, abdominal pain, and occasional diarrhoea; this may persist for months.
DINITRO-O-CRESOL	ADI: 0.5 mg/kg/day NOEL: 1000 mg/kg/day Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. NOTE: The substance is classified under EC Directive on Dangerous Substances (67/548/EEC): Possible risk of irreversible effects, (substances suspected of being carcinogenic and/or mutagenic)
M-CRESOL	Mutation DNA inhibition human
P-NITROPHENOL	Bacterial cell mutagen
PENTACHLOROPHENOL	The complex mixture pentachlorophenol and by-products of its synthesis is reasonably anticipated to be a human carcinogen based on limited evidence of carcinogenicity from studies in humans and sufficient evidence of carcinogenicity from studies in experimental animals. This conclusion is supported by mechanistic studies whose findings are consistent with the biological plausibility of its carcinogenicity in humans. Pentachlorophenol as it is used commercially is a mixture of pentachlorophenol and by-products formed or present during its production. Pentachlorophenol and by-products of its synthesis (hereinafter referred to collectively as ?pentachlorophenol?) includes higher-chlorinated dioxins and furans, polychlorinated phenols, hexachlorobenzene, and other by-products. People exposed to pentachlorophenol are also exposed to its by-products; therefore, the listing is for this complex mixture. The epidemiological studies could not separate the effects of pentachlorophenol from any effects of its by-products.
2,3,4,6-TETRACHLOROPHENOL	WARNING : IARC Human Limited Evidence [RTECS]

RCRA Target Phenols Mix

2,4,5-TRICHLOROPHENOL	Neoplastic by RTECS criteria. IARC Cancer Review: Animal Sufficient Evidence, Human Limited The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
2,4,6-TRICHLOROPHENOL	IARC Cancer Review: Animal Sufficient Evidence, Human Inadequate.
RCRA Target Phenols Mix & 4-CHLORO-M-CRESOL & 2,4-DICHLOROPHENOL & 2,6-DICHLOROPHENOL & 2,4-XYLENOL & O-CRESOL & M-CRESOL & P-CRESOL & O-NITROPHENOL & P-NITROPHENOL & PENTACHLOROPHENOL & PHENOL & 2,3,5,6-TETRACHLOROPHENOL & ISOPROPANOL	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.
RCRA Target Phenols Mix & 4-CHLORO-M-CRESOL & 2,6-DICHLOROPHENOL & DINITRO-O-CRESOL & 2,3,5,6-TETRACHLOROPHENOL	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.
RCRA Target Phenols Mix & ISOPROPANOL	Isopropanol is irritating to the eyes, nose and throat but generally not to the skin. Prolonged high dose exposure may also produce depression of the central nervous system and drowsiness. Few have reported skin irritation. It can be absorbed from the skin or when inhaled.
4-CHLORO-M-CRESOL & O-CHLOROPHENOL	551phenth
4-CHLORO-M-CRESOL & O-CHLOROPHENOL & 2,4-DICHLOROPHENOL & 2,6-DICHLOROPHENOL & PENTACHLOROPHENOL & 2,3,4,6-TETRACHLOROPHENOL & 2,4,5-TRICHLOROPHENOL & 2,4,6-TRICHLOROPHENOL	Side-reactions during manufacture of the parent compound may result in the production of trace amounts of polyhalogenated aromatic hydrocarbon(s). Halogenated phenols, and especially their alkali salts, can condense above 300 deg. Polyhalogenated aromatic hydrocarbons (PHAHs) can cause effects on hormones and mimic thyroid hormone. Acne, discharge in the eye, eyelid swellings and visual disturbances may occur.
4-CHLORO-M-CRESOL & PENTACHLOROPHENOL	WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
DINEX & 2,4-DINITROPHENOL & DINITRO-O-CRESOL & PENTACHLOROPHENOL & 2,4,5-TRICHLOROPHENOL & 2,4,6-TRICHLOROPHENOL & ISOPROPANOL	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.
2,4-DICHLOROPHENOL & PENTACHLOROPHENOL & 2,3,4,6-TETRACHLOROPHENOL	Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).
2,6-DICHLOROPHENOL & DINOSEB & O-CRESOL & M-CRESOL & P-CRESOL & PHENOL & 2,3,4,6-TETRACHLOROPHENOL & 2,4,6-TRICHLOROPHENOL	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
2,6-DICHLOROPHENOL & O-CRESOL & M-CRESOL & P-CRESOL & PHENOL	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.
2,4-DINITROPHENOL & DINITRO-O-CRESOL	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
PENTACHLOROPHENOL & 2,3,4,6-TETRACHLOROPHENOL & 2,3,5,6-TETRACHLOROPHENOL	WARNING: Pentachlorophenol can be embryotoxic, foetotoxic, and teratogenic (birth defects) in test animals. No safe exposure level has been established for pregnant women [Williams, P.L., "Pentachlorophenol, an assessment of the occupational hazard", Am.Ind.Hyg.Assoc.J. 43(11):799-810(1982)]. Hexachlorodibenzodioxin and other higher chlorodioxins and dibenzofurans are known contaminants of pentachlorophenol and that hexachlorodibenzodioxin has been reported to cause cancer and adverse effects on reproduction in animals. Teratogenicity: EPA has concluded that pentachlorophenol and possibly its hexachlorodibenzo-p-dioxin (HxCDD) contaminants cause birth defects and foetotoxic effects in test animals. Reported adverse effects in fetuses from pentachlorophenol exposure include distorted sex ratios, increased incidences of resorbed embryos, skeletal anomalies, subcutaneous edema (excessive fluid), reduced survival, and reduced growth.
PENTACHLOROPHENOL & 2,4,6-TRICHLOROPHENOL	Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen [National Toxicology Program: U.S. Dep. of Health & Human Services 2002]
PHENOL & ISOPROPANOL	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.
2,3,4,6-TETRACHLOROPHENOL & 2,4,6-TRICHLOROPHENOL	Carcinogenic by RTECS criteria.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓

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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

RCRA Target Phenols Mix	Endpoint	Test Duration (hr)	Species	Value	Source
RCRA Target Phenols Mix	Not Available	Not Available	Not Available	Not Available	Not Available
4-chloro-m-cresol	Not Available	Not Available	Not Available	Not Available	Not Available
o-chlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
dinex	Not Available	Not Available	Not Available	Not Available	Not Available
2,4-dichlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,6-dichlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,4-xylenol	Not Available	Not Available	Not Available	Not Available	Not Available
dinoseb	Not Available	Not Available	Not Available	Not Available	Not Available
2,4-dinitrophenol	Not Available	Not Available	Not Available	Not Available	Not Available
dinitro-o-cresol	Not Available	Not Available	Not Available	Not Available	Not Available
o-cresol	Not Available	Not Available	Not Available	Not Available	Not Available
m-cresol	Not Available	Not Available	Not Available	Not Available	Not Available
p-cresol	Not Available	Not Available	Not Available	Not Available	Not Available
o-nitrophenol	Not Available	Not Available	Not Available	Not Available	Not Available
p-nitrophenol	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

RCRA Target Phenols Mix

	Endpoint	Test Duration (hr)	Species	Value	Source
pentachlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
phenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,3,4,5-Tetrachlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,3,4,6-tetrachlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,3,5,6-tetrachlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,4,5-trichlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
2,4,6-trichlorophenol	Not Available	Not Available	Not Available	Not Available	Not Available
isopropanol	Not Available	Not Available	Not Available	Not Available	Not Available
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				

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Isopropanol (IPA):

log Kow: -0.16- 0.28;

Half-life (hr) air: 33-84;

Half-life (hr) H₂O surface water: 130;

Henry's atm m³ /mol: 8.07E-06;

BOD 5: 1.19,60%;

COD: 1.61-2.30, 97%;

ThOD: 2.4;

BOD 20: >70%.

Environmental Fate: IPA is expected to partition primarily to the aquatic compartment (77.7%) with the remainder to the air (22.3%). Overall, IPA presents a low potential hazard to aquatic or terrestrial biota.

Aquatic Fate: IPA has been shown to biodegrade rapidly in aerobic, aqueous biodegradation tests and therefore, would not be expected to persist in aquatic habitats.

for Dinitrocresols: Henry's Law Constant: 1.4x10⁻⁶ atm-m³/mole; Adsorption Coefficient: 590 mg/g; BCF: 40; Log Kow: 2.85; Vapor Pressure: 1.05x10⁻⁴ mm Hg; Koc 2.35-2.77.

Atmospheric Fate: Photolysis of o-cresol in the presence of nitrogen oxides produced dinitrocresols in the aerosol phase. The distance of atmospheric transport for dinitro-o-cresols (DNOC) depends on the half-life and the physical state of the compound in air. It is possible that atmospheric DNOC will absorb sunlight and undergo a reaction.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
4-chloro-m-cresol	LOW (Half-life = 49 days)	LOW (Half-life = 0.67 days)
o-chlorophenol	HIGH	HIGH
dinex	HIGH	HIGH
2,4-dichlorophenol	MEDIUM (Half-life = 70 days)	LOW (Half-life = 8.83 days)
2,6-dichlorophenol	HIGH	HIGH
2,4-xylenol	LOW (Half-life = 14 days)	LOW (Half-life = 0.5 days)
dinoseb	HIGH (Half-life = 246 days)	LOW (Half-life = 5.08 days)
2,4-dinitrophenol	HIGH (Half-life = 526 days)	LOW (Half-life = 46.42 days)
dinitro-o-cresol	LOW (Half-life = 42 days)	MEDIUM (Half-life = 129.08 days)
o-cresol	LOW (Half-life = 14 days)	LOW (Half-life = 0.67 days)
m-cresol	LOW (Half-life = 49 days)	LOW (Half-life = 0.47 days)
p-cresol	LOW (Half-life = 28 days)	LOW (Half-life = 0.63 days)
o-nitrophenol	LOW (Half-life = 28 days)	LOW (Half-life = 2.96 days)

Continued...

RCRA Target Phenols Mix

Ingredient	Persistence: Water/Soil	Persistence: Air
p-nitrophenol	LOW (Half-life = 9.79 days)	LOW (Half-life = 6.04 days)
pentachlorophenol	HIGH (Half-life = 1535 days)	LOW (Half-life = 58 days)
phenol	LOW (Half-life = 10 days)	LOW (Half-life = 0.95 days)
2,3,4,5-Tetrachlorophenol	HIGH	HIGH
2,3,4,6-tetrachlorophenol	HIGH (Half-life = 360 days)	MEDIUM (Half-life = 151.83 days)
2,3,5,6-tetrachlorophenol	HIGH	HIGH
2,4,5-trichlorophenol	HIGH (Half-life = 1820.42 days)	LOW (Half-life = 12.54 days)
2,4,6-trichlorophenol	HIGH (Half-life = 1820.42 days)	LOW (Half-life = 51.42 days)
isopropanol	LOW (Half-life = 14 days)	LOW (Half-life = 3 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
4-chloro-m-cresol	LOW (BCF = 13)
o-chlorophenol	LOW (BCF = 214)
dinex	MEDIUM (LogKOW = 4.12)
2,4-dichlorophenol	LOW (BCF = 69)
2,6-dichlorophenol	LOW (BCF = 20)
2,4-xylenol	LOW (LogKOW = 2.3)
dinoseb	LOW (BCF = 2.5)
2,4-dinitrophenol	LOW (BCF = 3.7)
dinitro-o-cresol	LOW (BCF = 2.9)
o-cresol	LOW (LogKOW = 1.95)
m-cresol	LOW (LogKOW = 1.96)
p-cresol	LOW (LogKOW = 1.94)
o-nitrophenol	LOW (BCF = 76)
p-nitrophenol	LOW (BCF = 280)
pentachlorophenol	LOW (BCF = 224)
phenol	LOW (BCF = 17.5)
2,3,4,5-Tetrachlorophenol	MEDIUM (LogKOW = 4.0908)
2,3,4,6-tetrachlorophenol	LOW (BCF = 95)
2,3,5,6-tetrachlorophenol	MEDIUM (LogKOW = 3.88)
2,4,5-trichlorophenol	MEDIUM (BCF = 825)
2,4,6-trichlorophenol	HIGH (BCF = 12130)
isopropanol	LOW (LogKOW = 0.05)

Mobility in soil

Ingredient	Mobility
4-chloro-m-cresol	LOW (KOC = 717.6)
o-chlorophenol	LOW (KOC = 443.1)
dinex	LOW (KOC = 14030)
2,4-dichlorophenol	LOW (KOC = 717.6)
2,6-dichlorophenol	LOW (KOC = 732.5)
2,4-xylenol	LOW (KOC = 717.6)
dinoseb	LOW (KOC = 3544)
2,4-dinitrophenol	LOW (KOC = 363.8)
dinitro-o-cresol	LOW (KOC = 601.5)
o-cresol	LOW (KOC = 443.1)
m-cresol	LOW (KOC = 434)
p-cresol	LOW (KOC = 434)
o-nitrophenol	LOW (KOC = 315.5)
p-nitrophenol	LOW (KOC = 309)
pentachlorophenol	LOW (KOC = 3380)
phenol	LOW (KOC = 268)
2,3,4,5-Tetrachlorophenol	LOW (KOC = 2002)
2,3,4,6-tetrachlorophenol	LOW (KOC = 2002)
2,3,5,6-tetrachlorophenol	LOW (KOC = 2002)
2,4,5-trichlorophenol	LOW (KOC = 1186)
2,4,6-trichlorophenol	LOW (KOC = 1186)

RCRA Target Phenols Mix

Ingredient	Mobility
isopropanol	HIGH (KOC = 1.06)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product. <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▶ Reduction ▶ Reuse ▶ Recycling ▶ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</p> <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. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers.
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SECTION 14 Transport information

Labels Required

	
Marine Pollutant	NO
HAZCHEM	*2YE

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

Air transport (ICAO-IATA / DGR)

UN number	1219	
UN proper shipping name	Isopropyl alcohol; Isopropanol	
Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	3L
Packing group	II	
Environmental hazard	Not Applicable	
Special precautions for user	Special provisions	A180
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353
	Passenger and Cargo Maximum Qty / Pack	5 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y341
	Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

UN number	1219	
UN proper shipping name	ISOPROPANOL (ISOPROPYL ALCOHOL)	
Transport hazard class(es)	IMDG Class	3
	IMDG Subrisk	Not Applicable
Packing group	II	

RCRA Target Phenols Mix

Environmental hazard	Not Applicable	
Special precautions for user	EMS Number	F-E, S-D
	Special provisions	Not Applicable
	Limited Quantities	1 L

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
4-chloro-m-cresol	Not Available
o-chlorophenol	Not Available
dinex	Not Available
2,4-dichlorophenol	Not Available
2,6-dichlorophenol	Not Available
2,4-xylenol	Not Available
dinoseb	Not Available
2,4-dinitrophenol	Not Available
dinitro-o-cresol	Not Available
o-cresol	Not Available
m-cresol	Not Available
p-cresol	Not Available
o-nitrophenol	Not Available
p-nitrophenol	Not Available
pentachlorophenol	Not Available
phenol	Not Available
2,3,4,5-Tetrachlorophenol	Not Available
2,3,4,6-tetrachlorophenol	Not Available
2,3,5,6-tetrachlorophenol	Not Available
2,4,5-trichlorophenol	Not Available
2,4,6-trichlorophenol	Not Available
isopropanol	Not Available

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
4-chloro-m-cresol	Not Available
o-chlorophenol	Not Available
dinex	Not Available
2,4-dichlorophenol	Not Available
2,6-dichlorophenol	Not Available
2,4-xylenol	Not Available
dinoseb	Not Available
2,4-dinitrophenol	Not Available
dinitro-o-cresol	Not Available
o-cresol	Not Available
m-cresol	Not Available
p-cresol	Not Available
o-nitrophenol	Not Available
p-nitrophenol	Not Available
pentachlorophenol	Not Available
phenol	Not Available
2,3,4,5-Tetrachlorophenol	Not Available
2,3,4,6-tetrachlorophenol	Not Available
2,3,5,6-tetrachlorophenol	Not Available
2,4,5-trichlorophenol	Not Available
2,4,6-trichlorophenol	Not Available
isopropanol	Not Available

SECTION 15 Regulatory information

Continued...

RCRA Target Phenols Mix

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

<p>4-chloro-m-cresol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5</p>	<p>Australian Inventory of Industrial Chemicals (AIIC)</p>
<p>o-chlorophenol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)</p>	<p>International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)</p>
<p>dinex is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals</p>	<p>WHO Recommended Classification of Pesticides by Hazard - Table 7. Pesticides subject to the Rotterdam Convention</p>
<p>2,4-dichlorophenol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4 Australian Inventory of Industrial Chemicals (AIIC)</p>	<p>International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans</p>
<p>2,6-dichlorophenol is found on the following regulatory lists</p> <p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4 Australian Inventory of Industrial Chemicals (AIIC)</p>	<p>International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans</p>
<p>2,4-xylenol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)</p>
<p>dinoseb is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7 Australian Inventory of Industrial Chemicals (AIIC) Chemical Footprint Project - Chemicals of High Concern List</p>
<p>2,4-dinitrophenol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7 Australian Inventory of Industrial Chemicals (AIIC)</p>
<p>dinitro-o-cresol is found on the following regulatory lists</p> <p>Australia Chemicals with non-industrial uses removed from the Australian Inventory of Chemical Substances (old Inventory) Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7 United Nations List of Prior Informed Consent Chemicals</p>
<p>o-cresol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5</p>	<p>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)</p>
<p>m-cresol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)</p>
<p>p-cresol is found on the following regulatory lists</p> <p>Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5</p>	<p>Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)</p>
<p>o-nitrophenol is found on the following regulatory lists</p>	

RCRA Target Phenols Mix

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

p-nitrophenol 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 4

pentachlorophenol is found on the following regulatory lists

Australia Chemicals with non-industrial uses removed from the Australian Inventory of Chemical Substances (old Inventory)

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Model Work Health and Safety Regulations - Hazardous chemicals (other than lead) requiring health monitoring

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7

Chemical Footprint Project - Chemicals of High Concern List

phenol 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 2

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

2,3,4,5-Tetrachlorophenol is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

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

2,3,4,6-tetrachlorophenol 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 4

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

2,3,5,6-tetrachlorophenol is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

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

2,4,5-trichlorophenol 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 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

2,4,6-trichlorophenol 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 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

isopropanol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

United Nations List of Prior Informed Consent Chemicals

WHO Recommended Classification of Pesticides by Hazard - Table 7. Pesticides subject to the Rotterdam Convention

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

Chemical Footprint Project - Chemicals of High Concern List

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

Chemical Footprint Project - Chemicals of High Concern List

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (dinex; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-tetrachlorophenol; 2,3,5,6-tetrachlorophenol)
Canada - DSL	No (dinex; 2,6-dichlorophenol; 2,4-xyleneol; 2,3,4,5-Tetrachlorophenol; 2,3,5,6-tetrachlorophenol; 2,4,5-trichlorophenol; 2,4,6-trichlorophenol)

RCRA Target Phenols Mix

National Inventory	Status
Canada - NDSL	No (4-chloro-m-cresol; dinex; 2,4-dichlorophenol; 2,6-dichlorophenol; dinoseb; 2,4-dinitrophenol; dinitro-o-cresol; o-cresol; m-cresol; p-cresol; o-nitrophenol; p-nitrophenol; pentachlorophenol; phenol; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-tetrachlorophenol; 2,3,5,6-tetrachlorophenol; isopropanol)
China - IECSC	No (dinex; 2,3,4,5-Tetrachlorophenol; 2,3,5,6-tetrachlorophenol)
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	No (2,3,4,5-Tetrachlorophenol; 2,3,5,6-tetrachlorophenol; 2,4,5-trichlorophenol)
New Zealand - NZIoC	No (dinex; pentachlorophenol; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-tetrachlorophenol)
Philippines - PICCS	No (dinex; dinoseb; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-tetrachlorophenol; 2,3,5,6-tetrachlorophenol; 2,4,5-trichlorophenol)
USA - TSCA	No (dinex; 2,3,4,5-Tetrachlorophenol; 2,3,5,6-tetrachlorophenol)
Taiwan - TCSI	Yes
Mexico - INSQ	No (2,3,4,5-Tetrachlorophenol)
Vietnam - NCI	No (dinex)
Russia - FBEPH	No (dinex; 2,3,4,5-Tetrachlorophenol)
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	05/07/2023
Initial Date	16/08/2018

SDS Version Summary

Version	Date of Update	Sections Updated
1.2	05/07/2023	Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (swallowed), First Aid measures - Advice to Doctor, Toxicological information - Chronic Health, Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Exposure controls / personal protection - Exposure Standard, First Aid measures - First Aid (inhaled), First Aid measures - First Aid (swallowed), Exposure controls / personal protection - Personal Protection (other), Exposure controls / personal protection - Personal Protection (Respirator)

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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