



PCB Window Defining Mixture

Novachem Pty Ltd

Version No: 1.3

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

Chemwatch Hazard Alert Code: 3

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S.GHS.AUS.EN

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

Product Identifier

Product name	PCB Window Defining Mixture
Synonyms	Not Available
Proper shipping name	OCTANES
Other means of identification	C-WDM

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]	Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Acute Hazard Category 1, Flammable Liquids Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 1, Aspiration Hazard Category 1
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)

H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H225	Highly flammable liquid and vapour.
H335	May cause respiratory irritation.

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H302	Harmful if swallowed.
H315	Causes skin irritation.
H410	Very toxic to aquatic life with long lasting effects.
H304	May be fatal if swallowed and enters airways.

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

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P331	Do NOT induce vomiting.
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.

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
92-52-4	<0.001	<u>biphenyl</u>
2051-60-7	<0.001	<u>2-chloro-1,1'-biphenyl</u>
2051-62-9	<0.001	<u>4-chloro-1,1'-biphenyl</u>
33146-45-1*	<0.001	<u>PCB No. 10</u>
2050-68-2	<0.001	<u>4,4'-dichloro-1,1'-biphenyl</u>
38444-73-4	<0.001	<u>2,2',6-trichlorobiphenyl</u>
38444-90-5*	<0.001	<u>3,4,4'-Trichlorobiphenyl</u>
15968-05-5*	<0.001	<u>PCB No. 54</u>
32598-13-3	<0.001	<u>3,4,3',4'-tetrachlorobiphenyl</u>
56558-16-8	<0.001	<u>2,2',4,6,6'-pentachlorobiphenyl</u>
57465-28-8	<0.001	<u>3,3',4,4',5-pentachlorobiphenyl</u>
33979-03-2	<0.001	<u>2,2',4,4',6,6'-hexachlorobiphenyl</u>
32774-16-6*	<0.001	<u>PCB No. 169</u>
74487-85-7*	<0.001	<u>2,2',3,4',5,6,6'-Heptachlorobiphenyl</u>
39635-31-9*	<0.001	<u>PCB No. 189</u>
2136-99-4	<0.001	<u>2,2',3,3',5,5',6,6'-Octachlorobiphenyl</u>
74472-53-0*	<0.001	<u>2,3,3',4,4',5,5',6-Octachlorobiphenyl</u>
40186-72-9	<0.001	<u>2,2',3,3',4,4',5,5',6-nonachlorobiphenyl</u>
52663-77-1	<0.001	<u>2,2',3,3',4,4',5,5',6'-nonachlorobiphenyl</u>
2051-24-3	<0.001	<u>1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl</u>
540-84-1	>99.88	<u>2,2,4-trimethylpentane</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.
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	<ul style="list-style-type: none"> ▶ 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 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"> ▶ 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. ▶ Seek medical advice. ▶ Avoid giving milk or oils. ▶ Avoid giving alcohol. ▶ 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

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

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.

SECTION 5 Firefighting measures**Extinguishing media****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	
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: carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.</p> <p>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p>
HAZCHEM	3YE

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. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	<p>The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.</p> <p>Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.</p> <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. <p>Contains low boiling substance:</p> <p>Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.</p> <ul style="list-style-type: none"> ▶ Check for bulging containers. ▶ Vent periodically ▶ Always release caps or seals slowly to ensure slow dissipation of vapours <p>· Electrostatic discharge may be generated during pumping - this may result in fire.</p> <p>· Ensure electrical continuity by bonding and grounding (earthing) all equipment.</p> <p>· Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/sec until fill pipe submerged to twice its diameter, then ≤ 7 m/sec).</p> <p>· Avoid splash filling.</p> <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. ▶ 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"> ▶ Glass container is suitable for laboratory quantities ▶ 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>Low molecular weight alkanes:</p> <ul style="list-style-type: none"> ▶ May react violently with strong oxidisers, chlorine, chlorine dioxide, dioxygenyl tetrafluoroborate. ▶ May react with oxidising materials, nickel carbonyl in the presence of oxygen, heat. ▶ Are incompatible with nitronium tetrafluoroborate(1-), halogens and interhalogens ▶ may generate electrostatic charges, due to low conductivity, on flow or agitation. ▶ Avoid flame and ignition sources <p>Redox reactions of alkanes, in particular with oxygen and the halogens, are possible as the carbon atoms are in a strongly reduced condition.</p> <ul style="list-style-type: none"> ▶ Avoid reaction with oxidising agents <p>n-Octane/ iso-octane:</p> <ul style="list-style-type: none"> ▶ reacts violently with strong oxidisers, dinitrogen tetraoxide ▶ is incompatible with sulfuric acid, nitric acid, caustics, aliphatic amines, isocyanates ▶ attacks some plastics, rubber and coatings ▶ may generate electrostatic charges on agitation or flow, due to low conductivity.

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	biphenyl	Biphenyl	0.2 ppm / 1.3 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
biphenyl	0.87 ppm	Not Available	300 ppm
2,2,4-trimethylpentane	230 ppm	830 ppm	5000* ppm

Ingredient	Original IDLH	Revised IDLH
biphenyl	100 mg/m3	Not Available
2-chloro-1,1'-biphenyl	Not Available	Not Available
4-chloro-1,1'-biphenyl	Not Available	Not Available
PCB No. 10	Not Available	Not Available

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Ingredient	Original IDLH	Revised IDLH
4,4'-dichloro-1,1'-biphenyl	Not Available	Not Available
2,2',6-trichlorobiphenyl	Not Available	Not Available
3,4,4'-Trichlorobiphenyl	Not Available	Not Available
PCB No. 54	Not Available	Not Available
3,4,3',4'-tetrachlorobiphenyl	Not Available	Not Available
2,2',4,6,6'-pentachlorobiphenyl	Not Available	Not Available
3,3',4,4',5-pentachlorobiphenyl	Not Available	Not Available
2,2',4,4',6,6'-hexachlorobiphenyl	Not Available	Not Available
PCB No. 169	Not Available	Not Available
2,2',3,4',5,6,6'-Heptachlorobiphenyl	Not Available	Not Available
PCB No. 189	Not Available	Not Available
2,2',3,3',5,5',6,6'-octachlorobiphenyl	Not Available	Not Available
2,3,3',4,4',5,5',6-Octachlorobiphenyl	Not Available	Not Available
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	Not Available	Not Available
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	Not Available	Not Available
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	Not Available	Not Available
2,2,4-trimethylpentane	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
2-chloro-1,1'-biphenyl	E	≤ 0.01 mg/m ³
4-chloro-1,1'-biphenyl	E	≤ 0.01 mg/m ³
PCB No. 10	E	≤ 0.1 ppm
4,4'-dichloro-1,1'-biphenyl	E	≤ 0.01 mg/m ³
2,2',6-trichlorobiphenyl	E	≤ 0.01 mg/m ³
3,4,4'-Trichlorobiphenyl	E	≤ 0.1 ppm
PCB No. 54	E	≤ 0.1 ppm
2,2',4,6,6'-pentachlorobiphenyl	E	≤ 0.01 mg/m ³
3,3',4,4',5-pentachlorobiphenyl	E	≤ 0.01 mg/m ³
2,2',4,4',6,6'-hexachlorobiphenyl	E	≤ 0.01 mg/m ³
PCB No. 169	E	≤ 0.1 ppm
2,2',3,4',5,6,6'-Heptachlorobiphenyl	E	≤ 0.1 ppm
PCB No. 189	E	≤ 0.1 ppm
2,2',3,3',5,5',6,6'-octachlorobiphenyl	E	≤ 0.01 mg/m ³
2,3,3',4,4',5,5',6-Octachlorobiphenyl	E	≤ 0.1 ppm
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	E	≤ 0.01 mg/m ³
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	E	≤ 0.01 mg/m ³
2,2,4-trimethylpentane	E	≤ 0.1 ppm

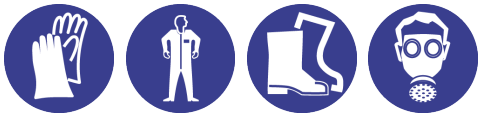
Notes:

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>CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear</p> <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>
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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>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> <ul style="list-style-type: none"> ▶ Neoprene rubber gloves
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit. ▶ 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 an 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
NITRILE	A
NEOPRENE	B
PVA	B
NATURAL RUBBER	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 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	-	A-PAPR-AUS / Class 1
up to 50 x ES	-	A-AUS / Class 1	-
up to 100 x ES	-	A-2	A-PAPR-2 ^

^ - 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)	0.691
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	396

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pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	-107.3	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	99.2	Molecular weight (g/mol)	Not Available
Flash point (°C)	-12	Taste	Not Available
Evaporation rate	>1 BuAC = 1	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	6	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1	Volatile Component (%vol)	>99
Vapour pressure (kPa)	5.47	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	3.93	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>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> <p>Nerve damage can be caused by some non-ring hydrocarbons. Symptoms are temporary, and include weakness, tremors, increased saliva, some convulsions, excessive tears with discolouration and inco-ordination lasting up to 24 hours.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.</p>
Ingestion	<p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)</p> <p>Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.</p> <p>Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed.</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 exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred.</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>The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.</p>
Eye	<p>This material can cause eye irritation and damage in some persons.</p> <p>Instillation of isoparaffins into rabbit eyes produces only slight irritation.</p>

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Chronic	Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]	
PCB Window Defining Mixture	TOXICITY Not Available	IRRITATION Not Available
biphenyl	TOXICITY Dermal (rabbit) LD50: >5010 mg/kg ^[2] Inhalation(Mouse) LC50; >0.275 mg/14h ^[2] Oral (Rat) LD50: 2400 mg/kg ^[2]	IRRITATION Eye (rabbit): 100 mg - mild Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1]
2-chloro-1,1'-biphenyl	TOXICITY Not Available	IRRITATION Not Available
4-chloro-1,1'-biphenyl	TOXICITY Not Available	IRRITATION Not Available
PCB No. 10	TOXICITY Not Available	IRRITATION Not Available
4,4'-dichloro-1,1'-biphenyl	TOXICITY Not Available	IRRITATION Not Available
2,2',6-trichlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
3,4,4'-Trichlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
PCB No. 54	TOXICITY Not Available	IRRITATION Not Available
3,4,3',4'-tetrachlorobiphenyl	TOXICITY Oral (Guinea) LD50; 1 mg/kg ^[2]	IRRITATION Not Available
2,2',4,6,6'-pentachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
3,3',4,4',5-pentachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
2,2',4,4',6,6'-hexachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
PCB No. 169	TOXICITY Oral (Guinea) LD50; 0.223 mg/kg ^[2]	IRRITATION Not Available
2,2',3,4',5,6,6'-Heptachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
PCB No. 189	TOXICITY Oral (Guinea) LD50; >3 mg/kg ^[2]	IRRITATION Not Available
2,2',3,3',5,5',6,6'-octachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
2,3,3',4,4',5,5',6-Octachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available

PCB Window Defining Mixture

1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	TOXICITY Not Available	IRRITATION Not Available
2,2,4-trimethylpentane	TOXICITY Dermal (rabbit) LD50: >2000 mg/kg ^[1] Inhalation(Rat) LC50: >33.52 mg/l4h ^[1] Oral (Rat) LD50: >5000 mg/kg ^[1]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1] Skin: no adverse effect observed (not irritating) ^[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	
BIPHENYL	Neoplastic by RTECS criteria. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. For biphenyl: Biphenyl is well absorbed through the digestive tract and presumably also via the lung and skin. It is moderately toxic when swallowed, non-irritating (and not sensitising) to skin and only slightly irritating to the eyes. Animal testing has shown that it potentially causes changes to cells of the urinary system and kidney stones. When swallowed, it can affect blood cell counts.	
4-CHLORO-1,1'-BIPHENYL	Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen [National Toxicology Program: U.S. Dep. of Health & Human Services 2002]	
3,4,3',4'-TETRACHLOROBIPHENYL	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.	
3,3',4,4',5-PENTACHLOROBIPHENYL	Bioaccumulation of PCB 126 results in persistent levels in animal and human tissues and the biological responses to PCB 126 are similar to those of TCDD, a known human carcinogen. Under the conditions of this 2-year gavage study there was clear evidence of carcinogenic activity* of PCB 126 in female Harlan Sprague-Dawley rats based on increased incidences of cholangiocarcinoma of the liver, squamous neoplasms of the lung (cystic keratinizing epithelioma and squamous cell carcinoma), and gingival squamous cell carcinoma of the oral mucosa. Hepatocellular adenoma and hepatocholangioma of the liver were also considered to be related to the administration of PCB 126. Neoplasms of the adrenal cortex and cholangioma of the liver may have been related to administration of PCB 126. PCB 126 administration caused increased incidences of nonneoplastic lesions of the liver, lung, adrenal cortex, pancreas, kidney, heart, thyroid gland, thymus, spleen, clitoral gland, and mesenteric artery in female rats NTP Report January 2006 WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.	
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL	WARNING: Polychlorinated biphenyls [1336-36-3] in general and [11097-69-1] in particular are classified by IARC as Group 2A -	
2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL	WARNING: Polychlorinated biphenyls [1336-36-3] in general and [11097-69-1] in particular are classified by IARC as Group 2A -	
PCB Window Defining Mixture & BIPHENYL & 4-CHLORO-1,1'-BIPHENYL & 2,2',4,6,6'-PENTACHLOROBIPHENYL & 3,3',4,4',5-PENTACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL & 2,2,4-TRIMETHYLPENTANE	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.	
PCB Window Defining Mixture & 2,2,4-TRIMETHYLPENTANE	The safety of isoparaffins as used in cosmetic products was reviewed by the Cosmetic Ingredient Review (CIR) Expert Panel. These ingredients function mostly as solvents and also function as emollients in the 0001% to 90% concentration range. The CIR Expert Panel has reviewed relevant animal and clinical data and concluded that these ingredients are safe in the present practices of use and concentration. The CIR Expert Panel noted that most of the available data related to oral or inhalation exposure to isoparaffins, but the dermal and ocular exposure data that were available, suggested mild ocular irritation, mild-to-severe irritation, no sensitization or photosensitization, and no phototoxicity. No significant toxicity was identified in oral or inhalation exposure studies of the following end points: genotoxicity, reproductive and developmental toxicity, or carcinogenicity. Nephrotoxicity, however, was a concern. The Expert Panel noted the involvement of a2u-globulin in the mechanism for isoparaffin-induced nephrotoxicity/renal tubule cell proliferation in male rats of various strains in oral and inhalation exposure studies. 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.	
2-CHLORO-1,1'-BIPHENYL & 4-CHLORO-1,1'-BIPHENYL & 4,4'-DICHLORO-1,1'-BIPHENYL & 2,2',6-TRICHLOROBIPHENYL & 3,4,3',4'-TETRACHLOROBIPHENYL & 2,2',4,6,6'-PENTACHLOROBIPHENYL & 2,2',4,4',6,6'-HEXACHLOROBIPHENYL & 2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6'-NONACHLOROBIPHENYL &	No significant acute toxicological data identified in literature search.	

PCB Window Defining Mixture

1,1',2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	
4-CHLORO-1,1'-BIPHENYL & 4,4'-DICHLORO-1,1'-BIPHENYL & 2,2',6-TRICHLOROBIPHENYL & 3,4,3',4'-TETRACHLOROBIPHENYL & 2,2',4,6,6'-PENTACHLOROBIPHENYL & 2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4,,5,5',6,6'-NONACHLOROBIPHENYL & 1,1',2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	WARNING: This substance has been classified by the IARC as Group 2A: Probably Carcinogenic to Humans.
4,4'-DICHLORO-1,1'-BIPHENYL & 2,2',6-TRICHLOROBIPHENYL & 3,4,3',4'-TETRACHLOROBIPHENYL & 2,2',4,6,6'-PENTACHLOROBIPHENYL & 3,3',4,4',5-PENTACHLOROBIPHENYL & 2,2',4,4',6,6'-HEXACHLOROBIPHENYL & 2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4,,5,5',6,6'-NONACHLOROBIPHENYL & 1,1',2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	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.
2,2',6-TRICHLOROBIPHENYL & 2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4,,5,5',6,6'-NONACHLOROBIPHENYL	Activation of the aryl hydrocarbon receptor (AhR) may lead to certain toxic responses. The "his" receptor has been shown to regulate xenobiotic-metabolising enzymes, such as cytochrome c. Toxicity results from two different ways of receptor signalling. The first is a side effect of the adaptive response, in which the induction of metabolising enzymes results in the production of toxic metabolites. The second results from changes in global gene transcription, beyond those observed in the "AhR gene group".
2,2',6-TRICHLOROBIPHENYL & 3,4,3',4'-TETRACHLOROBIPHENYL & 2,2',4,6,6'-PENTACHLOROBIPHENYL & 2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL & 1,1',2,2',3,3',4,4',5,5',6,6'-DECACHLOROBIPHENYL	WARNING: Polychlorinated biphenyls [CAS RN: 1336-36-3] in general and [CAS RN: 11097-69-1] in particular, are classified by IARC as Group 2A - Probably Carcinogenic to humans Use strict occupational hygiene practices to minimise all personal contact.
2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL & 2,2',3,3',4,4,,5,5',6,6'-NONACHLOROBIPHENYL	Probably carcinogenic to humans. Use strict occupational hygiene practices to minimize all personal contact. 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.

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

PCB Window Defining Mixture	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
biphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	48h	Crustacea	0.04mg/l	4
	EC50	96h	Algae or other aquatic plants	1.3mg/l	2
	EC50	72h	Algae or other aquatic plants	0.78mg/l	2
	EC50	48h	Crustacea	0.63-0.85mg/l	4

Continued...

PCB Window Defining Mixture

	LC50	96h	Fish	1.17-1.81mg/l	4
2-chloro-1,1'-biphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	72h	Fish	1.2-1.5mg/l	4
	LC50	96h	Fish	0.34-1.85mg/l	4
4-chloro-1,1'-biphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	0.305-1.7mg/l	4
PCB No. 10	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
4,4'-dichloro-1,1'-biphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	0.82h	Algae or other aquatic plants	>=250mg/l	4
2,2',6-trichlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
3,4,4'-Trichlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
PCB No. 54	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
3,4,3',4'-tetrachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	168h	Fish	0.1mg/l	4
	LC50	96h	Fish	>0.002mg/l	4
2,2',4,6,6'-pentachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	48h	Algae or other aquatic plants	0.001mg/l	Not Available
	LC50	96h	Fish	0.034mg/l	Not Available
3,3',4,4',5-pentachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	240h	Fish	0.000074mg/l	4
2,2',4,4',6,6'-hexachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
PCB No. 169	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,2',3,4',5,6,6'-Heptachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
PCB No. 189	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,2',3,3',5,5',6,6'-octachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,3,3',4,4',5,5',6-Octachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

PCB Window Defining Mixture

2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,2,4-trimethylpentane	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	504h	Crustacea	0.17mg/l	2
	LC50	96h	Fish	0.11mg/l	2
	EC50	48h	Crustacea	0.4mg/l	2
	BCF	672h	Fish	440-580	7

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*

Very toxic 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.

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.

However, some bacteria can metabolise some alkanes (especially those linear and short), by oxidizing the terminal carbon atom. The product is an alcohol, that could be next oxidised to an aldehyde, and finally to a carboxylic acid. The resulting fatty acid could be metabolised through the fatty acid degradation pathway.

Environmental Fate: n-Octane may be released into the environment through various waste streams as a result of its production and use in petroleum and gasoline products.

Terrestrial Fate: If released to soil, n-octane will have no mobility and will volatilize from moist and dry soil based upon its physico-chemical properties. However, volatilization may be attenuated due to its adsorption potential onto soil. Study shows that n-octane is capable of undergoing biodegradation under aerobic conditions.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
biphenyl	LOW (Half-life = 14 days)	LOW (Half-life = 4.58 days)
2-chloro-1,1'-biphenyl	HIGH	HIGH
4-chloro-1,1'-biphenyl	HIGH	HIGH
PCB No. 10	HIGH	HIGH
4,4'-dichloro-1,1'-biphenyl	HIGH	HIGH
2,2',6-trichlorobiphenyl	HIGH	HIGH
3,4,4'-Trichlorobiphenyl	HIGH	HIGH
PCB No. 54	HIGH	HIGH
3,4,3',4'-tetrachlorobiphenyl	HIGH	HIGH
2,2',4,6,6'-pentachlorobiphenyl	HIGH	HIGH
3,3',4,4',5-pentachlorobiphenyl	HIGH	HIGH
2,2',4,4',6,6'-hexachlorobiphenyl	HIGH	HIGH
PCB No. 169	HIGH	HIGH
2,2',3,4',5,6,6'-Heptachlorobiphenyl	HIGH	HIGH
PCB No. 189	HIGH	HIGH
2,3,3',4,4',5,5',6-Octachlorobiphenyl	HIGH	HIGH
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	HIGH	HIGH
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	HIGH	HIGH
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	HIGH	HIGH
2,2,4-trimethylpentane	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
biphenyl	MEDIUM (LogKOW = 3.98)
2-chloro-1,1'-biphenyl	HIGH (LogKOW = 4.53)
4-chloro-1,1'-biphenyl	HIGH (LogKOW = 4.61)
PCB No. 10	HIGH (LogKOW = 5.046)
4,4'-dichloro-1,1'-biphenyl	HIGH (LogKOW = 5.23)
2,2',6-trichlorobiphenyl	HIGH (LogKOW = 5.6905)
3,4,4'-Trichlorobiphenyl	HIGH (LogKOW = 5.6905)

Continued...

PCB Window Defining Mixture

Ingredient	Bioaccumulation
PCB No. 54	HIGH (LogKOW = 6.335)
3,4,3',4'-tetrachlorobiphenyl	HIGH (LogKOW = 6.335)
2,2',4,6,6'-pentachlorobiphenyl	HIGH (LogKOW = 6.9795)
3,3',4,4',5-pentachlorobiphenyl	HIGH (LogKOW = 6.9795)
2,2',4,4',6,6'-hexachlorobiphenyl	LOW (LogKOW = 7.624)
PCB No. 169	LOW (LogKOW = 7.624)
2,2',3,4',5,6,6'-Heptachlorobiphenyl	LOW (LogKOW = 8.2685)
PCB No. 189	LOW (LogKOW = 8.2685)
2,3,3',4,4',5,5',6-Octachlorobiphenyl	LOW (LogKOW = 8.913)
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	LOW (LogKOW = 9.5575)
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	LOW (LogKOW = 9.5575)
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	LOW (LogKOW = 10.202)
2,2,4-trimethylpentane	MEDIUM (BCF = 650)

Mobility in soil

Ingredient	Mobility
biphenyl	LOW (KOC = 6250)
2-chloro-1,1'-biphenyl	LOW (KOC = 10330)
4-chloro-1,1'-biphenyl	LOW (KOC = 10120)
PCB No. 10	LOW (KOC = 17090)
4,4'-dichloro-1,1'-biphenyl	LOW (KOC = 16400)
2,2',6-trichlorobiphenyl	LOW (KOC = 28250)
3,4,4'-Trichlorobiphenyl	LOW (KOC = 27110)
PCB No. 54	LOW (KOC = 46700)
3,4,3',4'-tetrachlorobiphenyl	LOW (KOC = 44820)
2,2',4,6,6'-pentachlorobiphenyl	LOW (KOC = 75640)
3,3',4,4',5-pentachlorobiphenyl	LOW (KOC = 74100)
2,2',4,4',6,6'-hexachlorobiphenyl	LOW (KOC = 122500)
PCB No. 169	LOW (KOC = 122500)
2,2',3,4',5,6,6'-Heptachlorobiphenyl	LOW (KOC = 206800)
PCB No. 189	LOW (KOC = 206800)
2,3,3',4,4',5,5',6-Octachlorobiphenyl	LOW (KOC = 349000)
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	LOW (KOC = 589000)
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	LOW (KOC = 589000)
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	LOW (KOC = 994000)
2,2,4-trimethylpentane	LOW (KOC = 275.5)

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>
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PCB Window Defining Mixture

	<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	
HAZCHEM	3YE

Land transport (ADG)

UN number	1262	
UN proper shipping name	OCTANES	
Transport hazard class(es)	Class	3
	Subrisk	Not Applicable
Packing group	II	
Environmental hazard	Environmentally hazardous	
Special precautions for user	Special provisions	Not Applicable
	Limited quantity	1 L

Air transport (ICAO-IATA / DGR)

UN number	1262	
UN proper shipping name	Octanes	
Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	3H
Packing group	II	
Environmental hazard	Environmentally hazardous	
Special precautions for user	Special provisions	Not Applicable
	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	1262	
UN proper shipping name	OCTANES	
Transport hazard class(es)	IMDG Class	3
	IMDG Subrisk	Not Applicable
Packing group	II	
Environmental hazard	Marine Pollutant	

PCB Window Defining Mixture

Special precautions for user	EMS Number	F-E, S-E
	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
biphenyl	Not Available
2-chloro-1,1'-biphenyl	Not Available
4-chloro-1,1'-biphenyl	Not Available
PCB No. 10	Not Available
4,4'-dichloro-1,1'-biphenyl	Not Available
2,2',6-trichlorobiphenyl	Not Available
3,4,4'-Trichlorobiphenyl	Not Available
PCB No. 54	Not Available
3,4,3',4'-tetrachlorobiphenyl	Not Available
2,2',4,6,6'-pentachlorobiphenyl	Not Available
3,3',4,4',5-pentachlorobiphenyl	Not Available
2,2',4,4',6,6'-hexachlorobiphenyl	Not Available
PCB No. 169	Not Available
2,2',3,4',5,6,6'-Heptachlorobiphenyl	Not Available
PCB No. 189	Not Available
2,2',3,3',5,5',6,6'-octachlorobiphenyl	Not Available
2,3,3',4,4',5,5',6-Octachlorobiphenyl	Not Available
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	Not Available
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	Not Available
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	Not Available
2,2,4-trimethylpentane	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
biphenyl	Not Available
2-chloro-1,1'-biphenyl	Not Available
4-chloro-1,1'-biphenyl	Not Available
PCB No. 10	Not Available
4,4'-dichloro-1,1'-biphenyl	Not Available
2,2',6-trichlorobiphenyl	Not Available
3,4,4'-Trichlorobiphenyl	Not Available
PCB No. 54	Not Available
3,4,3',4'-tetrachlorobiphenyl	Not Available
2,2',4,6,6'-pentachlorobiphenyl	Not Available
3,3',4,4',5-pentachlorobiphenyl	Not Available
2,2',4,4',6,6'-hexachlorobiphenyl	Not Available
PCB No. 169	Not Available
2,2',3,4',5,6,6'-Heptachlorobiphenyl	Not Available
PCB No. 189	Not Available
2,2',3,3',5,5',6,6'-octachlorobiphenyl	Not Available
2,3,3',4,4',5,5',6-Octachlorobiphenyl	Not Available
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl	Not Available
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl	Not Available

PCB Window Defining Mixture

Product name	Ship Type
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl	Not Available
2,2,4-trimethylpentane	Not Available

SECTION 15 Regulatory information

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

biphenyl is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australian Inventory of Industrial Chemicals (AIIC)

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

2-chloro-1,1'-biphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

4-chloro-1,1'-biphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

PCB No. 10 is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

4,4'-dichloro-1,1'-biphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

2,2',6-trichlorobiphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

3,4,4'-Trichlorobiphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

PCB No. 54 is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

3,4,3',4'-tetrachlorobiphenyl 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
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
Monographs - Group 1: Carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)

Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination
Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

2,2',4,6,6'-pentachlorobiphenyl is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination

Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

3,3',4,4',5-pentachlorobiphenyl 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
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
Monographs - Group 1: Carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
Manufactured Nanomaterials (MNMS)

Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination
Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C:
Unintentional Production
United Nations List of Prior Informed Consent Chemicals

2,2',4,4',6,6'-hexachlorobiphenyl is found on the following regulatory lists

PCB Window Defining Mixture

Chemical Footprint Project - Chemicals of High Concern List International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS) Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
PCB No. 169 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 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans	Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,2',3,4',5,6,6'-Heptachlorobiphenyl is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
PCB No. 189 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 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans	Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,2',3,3',5,5',6,6'-octachlorobiphenyl is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS) Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,3,3',4,4',5,5',6-Octachlorobiphenyl is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,2',3,3',4,4',5,5',6-nonachlorobiphenyl is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS) Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination	Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl is found on the following regulatory lists	
Australian Inventory of Industrial Chemicals (AIIC) Chemical Footprint Project - Chemicals of High Concern List International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)	Stockholm Convention on Persistent Organic Pollutants - Annex A - Elimination Stockholm Convention on Persistent Organic Pollutants (POPs) - Annex C: Unintentional Production United Nations List of Prior Informed Consent Chemicals
2,2,4-trimethylpentane is found on the following regulatory lists	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl)
Canada - DSL	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
Canada - NDSL	No (biphenyl; 2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl; 2,2,4-trimethylpentane)
China - IECSC	No (2-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
Europe - EINEC / ELINCS / NLP	No (PCB No. 10; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl)
Japan - ENCS	Yes
Korea - KECI	Yes

PCB Window Defining Mixture

National Inventory	Status
New Zealand - NZIoC	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
Philippines - PICCS	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
USA - TSCA	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
Taiwan - TCSI	No (PCB No. 10; 2,2',6-trichlorobiphenyl; PCB No. 54; 2,2',4,6,6'-pentachlorobiphenyl; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl)
Mexico - INSQ	No (2-chloro-1,1'-biphenyl; 4-chloro-1,1'-biphenyl; PCB No. 10; 4,4'-dichloro-1,1'-biphenyl; 2,2',6-trichlorobiphenyl; 3,4,4'-Trichlorobiphenyl; PCB No. 54; 3,4,3',4'-tetrachlorobiphenyl; 2,2',4,6,6'-pentachlorobiphenyl; 3,3',4,4',5-pentachlorobiphenyl; 2,2',4,4',6,6'-hexachlorobiphenyl; PCB No. 169; 2,2',3,4',5,6,6'-Heptachlorobiphenyl; PCB No. 189; 2,2',3,3',5,5',6,6'-octachlorobiphenyl; 2,3,3',4,4',5,5',6-Octachlorobiphenyl; 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6,6'-nonachlorobiphenyl; 1,1',2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl)
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	06/02/2023
Initial Date	06/02/2023

SDS Version Summary

Version	Date of Update	Sections Updated
0.3	06/02/2023	Ingredients, Physical Properties

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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