

SAFETY DATA SHEET

ACTIVATOR FAST

HPC2

Section 1. Identification

Product name : ACTIVATOR FAST

Product type : Liquid.

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

Supplier's details : DBNZ Coatings Ltd
176 Ossie James Drive
Hamilton Airport 3282
New Zealand
T: +64 7847 0944
E: info@dbnz.co.nz

Emergency telephone number (with hours of operation) : +(64)98010034 (Available 24 hrs / 7 days)

e-mail address of person responsible for this SDS : info@dbnz.co.nz

Section 2. Hazards identification

HSNO Classification : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2
RESPIRATORY SENSITISATION - Category 1
SKIN SENSITISATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This product is classified as DANGEROUS GOODS for transport, according to the New Zealand Standard NZS 5433: 2012 Transport of Dangerous Goods on Land.

GHS label elements

Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
Harmful if swallowed.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Do not apply directly into or onto water. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area.

Prevention : Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Wear respiratory protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Do not breathe vapour. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

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SHW-A4-AP-GHS-NZ

Section 2. Hazards identification

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Symbol :



Other hazards which do not result in classification : Please refer to the SDS for additional information. Keep out of reach of children.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Product code : HPC2

Ingredient name	% (w/w)	Identifiers
Hexamethylene Diisocyanate Polymer	≥30 - ≤60	CAS: 28182-81-2 EC: 500-060-2
Methyl Isobutyl Ketone	≥10 - ≤30	CAS: 108-10-1 EC: 203-550-1
Methyl Ethyl Ketone	≤10	CAS: 78-93-3 EC: 201-159-0
Isophorone Diisocyanate Polymer	≤5	CAS: 53880-05-0 EC: 500-125-5
n-Butyl Acetate	≤5	CAS: 123-86-4 EC: 204-658-1
Light Aromatic Hydrocarbons	≤3	CAS: 64742-95-6
Hexamethylene Diisocyanate (max.)	≤0.3	CAS: 822-06-0 EC: 212-485-8

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

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Section 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Ingestion** : Harmful if swallowed.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye irritation.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
wheezing and breathing difficulties
asthma
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Indication of immediate medical attention and special treatment needed, if necessary

- Specific treatments** : No specific treatment.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.

Section 5. Firefighting measures

Specific hazards arising from the chemical	: Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Hazchem code	: •3YE
Special precautions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and material for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
2-Pentanone, 4-methyl-	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 11/2023) WES-TWA 8 hours: 50 ppm. WES-TWA 8 hours: 205 mg/m ³ . WES-STEL 15 minutes: 307 mg/m ³ . WES-STEL 15 minutes: 75 ppm.
2-Butanone	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 11/2023) WES-TWA 8 hours: 150 ppm. WES-TWA 8 hours: 445 mg/m ³ . WES-STEL 15 minutes: 890 mg/m ³ . WES-STEL 15 minutes: 300 ppm.
Isophorone Diisocyanate Polymer	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 11/2023) [isocyanates, all] Skin sensitiser, Inhalation sensitiser. WES-TWA 8 hours: 0.02 mg/m ³ (measured as -NCO). Form: The Inhalable Fraction and Vapour (ifv) notation is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases, with each contributing to a significant portion of exposure..

Section 8. Exposure controls/personal protection

Acetic acid, butyl ester	WES-STEL 15 minutes: 0.07 mg/m³ (measured as -NCO). Form: The Inhalable Fraction and Vapour (ifv) notation is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases, with each contributing to a significant portion of exposure.. HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 11/2023) WES-TWA 8 hours: 150 ppm. WES-TWA 8 hours: 713 mg/m³. WES-STEL 15 minutes: 950 mg/m³. WES-STEL 15 minutes: 200 ppm.
Hexane, 1,6-diisocyanato-	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 11/2023) [isocyanates, all] Skin sensitiser, Inhalation sensitiser. WES-TWA 8 hours: 0.02 mg/m³ (measured as -NCO). Form: The Inhalable Fraction and Vapour (ifv) notation is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases, with each contributing to a significant portion of exposure.. WES-STEL 15 minutes: 0.07 mg/m³ (measured as -NCO). Form: The Inhalable Fraction and Vapour (ifv) notation is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases, with each contributing to a significant portion of exposure..

Biological exposure indices

Ingredient name	Exposure indices
2-Pentanone, 4-methyl-	HSWA 2015 - HSW (GRWM) 2016. Biological exposure indices (BEI) (New Zealand, 11/2023) BEI: 0.7 mg/l, MIBK [in urine]. Sampling time: end of shift.
2-Butanone	HSWA 2015 - HSW (GRWM) 2016. Biological exposure indices (BEI) (New Zealand, 11/2023) BEI: 2 mg/l, MEK [in urine]. Sampling time: end of shift.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Colour** : Clear.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 78°C (172.4°F)
- Flash point** : Closed cup: -7°C (19.4°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability** : Flammable liquid.
- Lower and upper explosion limit/flammability limit** : Lower: 0.7%
Upper: 10%
- Vapour pressure** : 12.1 kPa (90.6 mm Hg)
- Relative vapour density** : 2.48 [Air = 1]
- Relative density** : 0.99
- Solubility(ies)** :

Section 9. Physical and chemical properties

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >20.5 mm ² /s (>20.5 cSt)
Type of aerosol	: Not applicable.
Heat of combustion	: 13.505 kJ/g
Ignition distance	: Not applicable.
Enclosed space ignition - Time equivalent	: Not applicable.
Enclosed space ignition - Deflagration density	: Not applicable.
Flame height	: Not applicable.
Flame duration	: Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on likely routes of exposure

Inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	: Harmful if swallowed.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Eye contact	: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Adverse symptoms may include the following: wheezing and breathing difficulties asthma
Ingestion	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness

Section 11. Toxicological information

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information on toxicological effects

Acute toxicity

Product/ingredient name

Hexamethylene Diisocyanate Polymer

2-Pentanone, 4-methyl-

2-Butanone

Acetic acid, butyl ester

Aromatic hydrocarbon solvents - medium flashpoint

Hexane, 1,6-diisocyanato-

Result

Rat - Inhalation - LC50 Dusts and mists18500 mg/m³ [1 hours]**Rat - Oral - LD50**

2080 mg/kg

Rabbit - Dermal - LD50

6480 mg/kg

Rat - Oral - LD50

2737 mg/kg

Rat - Oral - LD50

10768 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes**Rabbit - Dermal - LD50**

>17600 mg/kg

Rat - Oral - LD50

8400 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes**Rat - Inhalation - LC50 Dusts and mists**124 mg/m³ [4 hours]

Conclusion/Summary[Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Hexamethylene Diisocyanate Polymer

2-Pentanone, 4-methyl-

2-Butanone

Acetic acid, butyl ester

Result

Rabbit - Skin - Moderate irritantAmount/concentration applied: 500 milligrams**Rabbit - Skin - Mild irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 500 mg**Rabbit - Skin - Mild irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 14 mg**Rabbit - Skin - Mild irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 402 mg**Rabbit - Skin - Moderate irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 500 mg**Rabbit - Skin - Moderate irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 500 mg

Conclusion/Summary[Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Result

Section 11. Toxicological information

Hexamethylene Diisocyanate Polymer

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 milligrams

2-Pentanone, 4-methyl-

Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Acetic acid, butyl ester

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 40 mg

Aromatic hydrocarbon solvents - medium flashpoint

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 mg

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 uL

Conclusion/Summary[Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary[Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary[Product] : Not available.

Respiratory

Conclusion/Summary[Product] : Not available.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Inhalation : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Ingestion : No known significant effects or critical hazards.

Skin contact : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Eye contact : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Chronic toxicity

Not available.

Conclusion/Summary[Product] : Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Conclusion/Summary[Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary[Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary[Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Isophorone Diisocyanate Polymer

Result

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

2-Butanone

Result

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Hexane, 1,6-diisocyanato-

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

Aspiration hazard

Product/ingredient name

Aromatic hydrocarbon solvents - medium flashpoint

Result

ASPIRATION HAZARD - Category 1

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ACTIVATOR FAST	918.5	N/A	N/A	211.2	5.9
Hexamethylene Diisocyanate Polymer	N/A	N/A	N/A	N/A	4.625
2-Pentanone, 4-methyl-	500	N/A	N/A	N/A	N/A
2-Butanone	2737	6480	N/A	N/A	N/A
Acetic acid, butyl ester	10768	N/A	N/A	11	N/A
Aromatic hydrocarbon solvents - medium flashpoint	8400	N/A	N/A	N/A	N/A
Hexane, 1,6-diisocyanato-	500	300	N/A	N/A	0.005

Section 12. Ecological information

Ecotoxicity : This material is harmful to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name

Result

Section 12. Ecological information

2-Pentanone, 4-methyl-

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 29 days; Size: 21 mm; Weight: 0.141 g

505 mg/l [96 hours]

Effect: Mortality

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

78 mg/l [21 days]

Effect: Behavior

Chronic - NOEC - Fresh water

Fish - Fathead minnow - *Pimephales promelas* - Embryo

Age: <24 hours

168 mg/l [33 days]

Effect: Mortality

2-Butanone

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Larvae

Age: <24 hours

5091 mg/l [48 hours]

Effect: Intoxication

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 22 mm; Weight: 0.167 g

3220 mg/l [96 hours]

Effect: Mortality

Acute - EC50 - Marine water

Algae - Diatom - *Skeletonema costatum*

>500 mg/l [96 hours]

Effect: Population

Acetic acid, butyl ester

Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g

18 mg/l [96 hours]

Effect: Mortality

Acute - LC50 - Marine water

Crustaceans - Brine shrimp - *Artemia salina*

32 mg/l [48 hours]

Effect: Mortality

Conclusion/Summary[Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary[Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Pentanone, 4-methyl-	-	-	Readily
2-Butanone	-	-	Readily
Acetic acid, butyl ester	-	-	Readily
Aromatic hydrocarbon solvents - medium flashpoint	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Aromatic hydrocarbon solvents - medium flashpoint	-	10 to 2500	High
Hexane, 1,6-diisocyanato-	-	57.63	Low

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Marine Pollutant
New Zealand Class	UN1263	PAINT RELATED MATERIAL	3	II		No.
ADG Class	UN1263	PAINT RELATED MATERIAL	3	II		No.
UN Class	UN1263	PAINT RELATED MATERIAL	3	II		No.
ADR/RID Class	UN1263	PAINT RELATED MATERIAL	3	II		No.
IATA Class	UN1263	PAINT RELATED MATERIAL	3	II		No.
IMDG Class	UN1263	PAINT RELATED MATERIAL	3	II		Not a pollutant.

Additional information

New Zealand Class : **Hazchem code** •3YE

ADG Class : **Hazchem code** •3YE

Section 14. Transport information

UN Class : -
ADR/RID Class : Special provisions 640 (C)
Tunnel code D/E
IATA Class : -
IMDG Class : Emergency schedules F-E, S-E

PG* : Packing group

NZ NZS 14 Hazchem Code : •3YE

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

HSNO Approval Number : HSR002662
HSNO Group Standard : Surface coatings and colourants
HSNO Classification : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2
RESPIRATORY SENSITISATION - Category 1
SKIN SENSITISATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Other information

History

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Section 16. Other information

Key to abbreviations

: ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SGG = Segregation Group
UN = United Nations

References

: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can may change later the composition, hazards and risks of the product. Products shall should not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to, the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS, without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be held responsible for SDSs obtained from any other source.

