

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:

TOLONATE HDB

Recommended Use of the Chemical Manufacture of paints and varnishes. **and Restrictions on Use**

| Supplier: NZBN: Street Address: | Ixom Operations Pty Ltd (Incorporated in Australia) 9429041465226 166 Totara Street Mt Maunganui South New Zealand |
|---------------------------------------|--|
| Telephone Number: | +64 9 368 2700 |
| Facsimile: | +64 9 368 2710 |
| Emergency Telephone: | 0 800 734 607 (ALL HOURS) |

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

SIGNAL WORD: DANGER

Subclasses:

Subclass 6.1 Category D - Substances which are acutely toxic. Subclass 6.5 Category A - Substances that are respiratory sensitisers. Subclass 6.5 Category B - Substances that are contact sensitisers.

Approval Number: HSR003565



Hazard Statement(s): H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statement(s):

Prevention:

P102 Keep out of reach of children.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see First Aid Measures on the Safety Data Sheet).
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P304+P341 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Storage:

No storage statements.

Disposal:

P501 In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Components | CAS Number | Proportion | Hazard Codes |
|---|------------|------------|---------------------|
| Hexamethylene diisocyanate, homopolymer | 28182-81-2 | >99% | H317 H332 H335 |
| Hexamethylene diisocyanate | 822-06-0 | <0.3% | H302 H330 H319 H335 |
| | | | H315 H334 H317 |

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water and soap. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion:

Do not give anything to drink. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Normal foam, dry agent (carbon dioxide, dry chemical powder).

ІХОП



Unsuitable Extinguishing Media:

Water.

Specific hazards arising from the substance or mixture:

Combustible liquid.

Special protective equipment and precautions for fire-fighters:

On burning will emit toxic fumes, including those of oxides of carbon, and oxides of nitrogen. Keep containers cool with water spray. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Wash area down with excess water. Recover the cleaning water for subsequent disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep dry - reacts with water, may lead to drum rupture. Protect from humidity. Suitable containers: steel. Suitable containers: aluminium. Do not store in copper or copper alloy containers. Do not store in tin containers. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Standards: No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Isocyanates, all, (as -NCO): WES-TWA 0.02 mg/m³; WES-STEL 0.07 mg/m³, sen



As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

`Sen' Notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, SAFETY SHOES, FACE SHIELD OR AIR MASK, GLOVES (Long). * Not required if wearing air supplied mask.



Wear overalls, impervious gloves and a positive pressure air supplied full-face respirator. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Colour: Odour: Solubility: Specific Gravity: Clear Liquid Colourless to Pale Yellow Odourless Reacts with water. 1.12 @25°C

Product Name: TOLONATE HDB Substance No: 00000018956 Issued: 17/05/2016 Version: 3



Relative Vapour Density (air=1):Not availableVapour Pressure (20 °C):Not availableFlash Point (°C):170 (ClosedFlammability Limits (%):Not availableAutoignition Temperature (°C):450Boiling Point/Range (°C):>220 @1.33Decomposition Point (°C):Not availablepH:Not applicableViscosity:ca. 10000 mF

Not available Not available 170 (Closed cup) Not available 450 >220 @1.33 hPa Not available Not applicable ca. 10000 mPa.s @25°C (Dynamic)

10. STABILITY AND REACTIVITY

| Reactivity: | Reacts with alcohols , amines , bases , protic solvents , water, aqueous solutions. |
|-------------------------------------|---|
| Chemical stability: | Stable at ambient temperatures. |
| Possibility of hazardous reactions: | Reacts with alcohols , amines , bases , protic solvents , water , aqueous solutions liberating carbon dioxide . |
| Conditions to avoid: | Avoid exposure to heat, sources of ignition, and open flame. Avoid exposure to moisture. |
| Incompatible materials: | Incompatible with alcohols , amines , bases , protic solvents , water , aqueous solutions . |
| Hazardous decomposition products: | Oxides of carbon. Oxides of nitrogen. |

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

| Ingestion: | Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain. |
|---------------|--|
| Eye contact: | May be an eye irritant. |
| Skin contact: | Contact with skin may result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis. |
| Inhalation: | Material is irritant to the mucous membranes of the respiratory tract (airways). May cause respiratory sensitisation in sensitive individuals, producing asthma-like symptoms. |
| • • • • • | |

Acute toxicity: Oral LD50 (rat): >5000 mg/kg

Dermal LD50 (rabbit): >2000 mg/kg

Chronic effects: No information available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Avoid contaminating waterways.

Persistence/degradability:

The material is not biodegradable.



13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor. Neutralise with a mixture of water (95%)/8% ammonia solution and liquid soap (2%). Normally suitable for incineration by an approved agent.

14. TRANSPORT INFORMATION

Road and Rail Transport

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses:

Subclass 6.1 Category D - Substances which are acutely toxic. Subclass 6.5 Category A - Substances that are respiratory sensitisers. Subclass 6.5 Category B - Substances that are contact sensitisers.

Approval Number: HSR003565

Hazard Statement(s):

H317 May cause an allergic skin reaction.H332 Harmful if inhaled.H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

16. OTHER INFORMATION

Supplier Safety Data Sheet; 03/ 2011. TOLONATE is a trademark.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue: Revised Primary SDS Change in Hazardous Substance Classification



This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.