

## Jotatemp 1000 Comp B

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

**Product name** : Jotatemp 1000 Comp B  
**Code** : 48343  
**Product description** : Hardener.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

Use in coatings - Industrial use  
Use in coatings - Professional use

**1.2 Details of the supplier of the safety data sheet**

**Manufacturer** : Jotun Australia  
9 Cawley Road  
Brooklyn 3012  
Australia  
  
Telephone + 61 39314 0722  
Fax + 61 39314 0423  
  
SDSJotun@jotun.com

**Supplier** : APCO Coatings (NZ) Ltd  
1/20A Arwen Place,  
East Tamaki,  
Auckland 2013, New Zealand  
  
Phone +64 800 289 2726

**1.3 Emergency telephone number**

**Emergency telephone number** : Medical Emergencies 24 hours:  
Poisons Information Centre (New Zealand) 0800 764 766

**Section 2. Hazards identification****2.1 Classification of the substance or mixture**

**HSNO Classification** : 3.1 - FLAMMABLE LIQUIDS - Category C  
6.1 - ACUTE TOXICITY (oral) - Category E  
6.3 - SKIN IRRITATION - Category A  
8.3 - CORROSIVE TO OCULAR TISSUE - Category A

**2.2 Label elements**

**Hazard pictograms** :  

**Signal word** : Danger.

## Section 2. Hazards identification

- Hazard statements** : Flammable liquid and vapour.  
May be harmful if swallowed.  
Causes skin irritation.  
Causes serious eye damage.
- Precautionary statements**
- Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Wash thoroughly after handling.
- Response** : Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Take off contaminated clothing and wash before reuse. Rinse skin with water [or shower]. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Storage** : Store in a cool/well-ventilated place.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None known.

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**
- CAS number** : Not applicable.
- EC number** : Mixture.

Ingredient name	% (w/w)	CAS number
titanium tetrabutanolate	≥90	5593-70-4

**There are no 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** : Get medical attention immediately. 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. 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.

## Section 4. First aid measures

- Ingestion** : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Chemical burns must be treated promptly by a 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** : Get medical attention immediately. Flush contaminated skin with plenty of 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. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Get medical attention immediately. 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. Chemical burns must be treated promptly by a physician.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : May be harmful if swallowed.
- Skin contact** : Causes skin irritation.
- Eye contact** : Causes serious eye damage.

#### Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : Adverse symptoms may include the following:  
stomach pains
- Skin** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Eyes** : Adverse symptoms may include the following:  
pain  
watering  
redness

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

- Specific treatments** : Not available.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Specific hazards arising from the chemical** : Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides
- Hazchem code** : 3[Y]

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## Section 5. Firefighting measures

- 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** : 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- 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).
- Methods and material for containment and cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. 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. 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 (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

- Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- 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.

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

See Technical Data Sheet / packaging for further information.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

**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

**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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**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.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

Recommended, gloves(breakthrough time) > 8 hours: butyl rubber

**Eye protection** : Safety eyewear complying to EN 166 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

**Skin 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.

**Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

## Section 9. Physical and chemical properties

### Appearance

Physical state	: Liquid.
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: Not available.
pH	: Not applicable.
Melting point	: Not available.
Boiling point	: Lowest known value: 220°C (428°F) (titanium tetraisopropanolate).
Flash point	: Closed cup: 40°C (104°F)
Burning rate	: Not applicable.
Burning time	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	:
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: Not available.
Density	: 0.996 g/cm <sup>3</sup> @ 20 °C
Solubility	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Kinematic (40°C): >0.205 cm <sup>2</sup> /s (>20.5 cSt)

### Aerosol product

Type of aerosol	: Not applicable.
Heat of combustion	: Not available.
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

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.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Section 11. Toxicological information

Risk of serious damage to eyes.

### Information on likely routes of exposure

- Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : May be harmful if swallowed.  
**Skin contact** : Causes skin irritation.  
**Eye contact** : Causes serious eye damage.

### Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : No specific data.  
**Ingestion** : Adverse symptoms may include the following:  
 stomach pains  
**Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur  
**Eye contact** : Adverse symptoms may include the following:  
 pain  
 watering  
 redness

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

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
titanium tetrabutanolate	LD50 Oral	Rat	3122 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium tetrabutanolate	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
titanium tetraisopropanolate	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Mammal - species unspecified	-	-	-

#### Sensitisation

Not available.

#### Potential chronic health effects

- General** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**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.  
**Teratogenicity** : 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.

#### Carcinogenicity

## Section 11. Toxicological information

Not available.

### Mutagenicity

Not available.

### Teratogenicity

Not available.

### Reproductive toxicity

Not available.

### Specific target organ toxicity

Not available.

### Aspiration hazard

Not available.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	3215.24 mg/kg

## Section 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic and terrestrial toxicity

Not available.

### Persistence/degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient ( $K_{oc}$ )** : 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.

Do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste.



## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>New Zealand Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		<b>Hazchem code</b> 3[Y]
<b>ADG Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		<b>Hazchem code</b> 3[Y]
<b>UN Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		-
<b>ADR/RID Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		<b>Hazard identification number</b> 30 <b>Tunnel code</b> (D/E)
<b>IATA Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		-
<b>IMDG Class</b>	UN1993	Flammable liquid, n.o.s. (titanium tetrabutanolate, butan-1-ol)	3	III		<b>Emergency schedules</b> F-E, S-E

PG\* : Packing group

**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 accordance with ADR/RID, IMDG/IMO and ICAO/IATA and national regulation.

**ADR / RID** :  
**IMDG** :

## Section 15. Regulatory information

### National regulations

#### Standard for the Uniform Scheduling of Medicines and Poisons

5

#### Control of Scheduled Carcinogenic Substances

##### Ingredient name

No listed substance

##### Schedule

- New Zealand Inventory of Chemicals (NZIoC)** : All ingredients are listed on (AICS/NZOIC) or exempt
- Australia inventory (AICS)** : All ingredients are listed on (AICS/NZOIC) or exempt
- HSNO Classification** : 3.1 - FLAMMABLE LIQUIDS - Category C  
6.1 - ACUTE TOXICITY (oral) - Category E  
6.3 - SKIN IRRITATION - Category A  
8.3 - CORROSIVE TO OCULAR TISSUE - Category A
- HSNO Group Standard** : Not available.
- HSNO Approval Number** : Not applicable
- Approved Handlers Certificate** : Approved Handlers certificate is exempt.
- Toxic substances schedule (NZ)** : 3.1 - FLAMMABLE LIQUIDS - Category C  
6.1 - ACUTE TOXICITY (oral) - Category E  
6.3 - SKIN IRRITATION - Category A  
8.3 - CORROSIVE TO OCULAR TISSUE - Category A

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## Section 15. Regulatory information

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

## Section 16. Other information

### Notice to reader

#### History

**Date of printing** : 26.11.2021

**Date of issue/Date of revision** : 26.11.2021

**Date of previous issue** : 14.01.2021

**Version** : 1.02

✔ Indicates information that has changed from previously issued version.

#### Disclaimer

*The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.*

*Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.*

*If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.*