

MARLEY CLEAR Version 1.01 Revision Date 29-Oct-2017 Supersedes Date: 07-Jun-2017

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product NameMARLEY CLEARPure substance/mixtureMixture

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

| Recommended use | Adhesives. |
|----------------------|---------------------------|
| Uses Advised Against | No information available. |

1.3. Details of the supplier of the safety data sheet

Company Name Bostik New Zealand Limited 19 Eastern Hutt Road Wingate, Lower Hutt, New Zealand Tel: 04-567 5119 Fax: 04-567 5412 Manufacturer Bostik Australia Pty Ltd 51-71 High street, Thomastown Victoria Australia Tel: 613 9279-9333 Fax: 613 9279-9342 24-hr Emergency: 1800 033 111

1.4. Emergency telephone number

Emergency Telephone

24 Hr: 0800 243 622 Poison Centre : 0800 764 766

E-mail address

SDS.AP@Bostik.com

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

| Skin Corrosion/Irritation | Category 2 (6.3A) |
|-----------------------------------|-----------------------------|
| Serious Eye Damage/Eye Irritation | Category 1 (8.3A) |
| STOT - Single Exposure | Category 3 (^f) |
| Flammable Liquids | Category 2 (3.1B) |

Classification in parenthesis is applicable for New Zealand Hazard Classification

ERMA Group

HSR002662

2.2. Label Elements



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Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H336 - May cause drowsiness or dizziness

H225 - Highly flammable liquid and vapor

Precautionary Statements - Prevention

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P233 Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P235 - Keep cool

Precautionary Statements - Response

P321 - Specific treatment (see supplemental first aid instructions on this label)

Inhalation

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

Skin

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P363 - Wash contaminated clothing before reuse

EYES

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

Fire

In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other Hazards

• May be harmful if swallowed

• May be harmful in contact with skin

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Mixture

3.2 Mixtures

| Chemical Name | CAS No. | Weight-% |
|---|------------|----------|
| Acetone | 67-64-1 | 20- <40 |
| Methyl ethyl ketone | 78-93-3 | 20- <40 |
| Cyclohexanone | 108-94-1 | 20- <40 |
| Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW | 25068-38-6 | 0.1- <1 |

*** Any remaining ingredients are not hazardous

Section 4: FIRST AID MEASURES

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4.1. Description of first aid measures

| General Advice | If medical advice is needed, have product container or label at hand. |
|--|---|
| Inhalation | Remove to fresh air. |
| Skin Contact | Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. |
| Eye contact | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| Ingestion | If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. |
| Self-Protection of the First Aider | Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
| 4.2. Most important symptoms and | d effects, both acute and delayed |
| Symptoms | None known. |
| 4.3. Indication of any immediate m | edical attention and special treatment needed |
| Note to physicians | Treat symptomatically. |
| 4.4. Reference to Other Sections | |
| Reference to other sections | See Section 12: ECOLOGICAL INFORMATION. Section 7: HANDLING AND STORAGE. Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. |
| | |
| Section 5: FIRE-FIGHTING N | /IEASURES |
| Section 5: FIRE-FIGHTING N 5.1. Extinguishing media | /IEASURES |
| | IEASURES Use CO2, dry chemical, or foam. |
| 5.1. Extinguishing media | |
| 5.1. Extinguishing media Suitable Extinguishing Media | Use CO2, dry chemical, or foam. No information available. |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from t | Use CO2, dry chemical, or foam. No information available. |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from the | Use CO2, dry chemical, or foam. No information available. he substance or mixture |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from the Specific Hazards Arising from the Chemical 5.3. Advice for firefighters | Use CO2, dry chemical, or foam. No information available. he substance or mixture |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from the Specific Hazards Arising from the Chemical 5.3. Advice for firefighters Special Protective Equipment for | Use CO2, dry chemical, or foam. No information available. he substance or mixture Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Wear self contained breathing apparatus for fire fighting if necessary. |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from the Specific Hazards Arising from the Chemical 5.3. Advice for firefighters Special Protective Equipment for Fire-fighters Section 6: ACCIDENTAL RE | Use CO2, dry chemical, or foam. No information available. he substance or mixture Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Wear self contained breathing apparatus for fire fighting if necessary. |
| 5.1. Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media 5.2. Special hazards arising from the Specific Hazards Arising from the Chemical 5.3. Advice for firefighters Special Protective Equipment for Fire-fighters Section 6: ACCIDENTAL RE | Use CO2, dry chemical, or foam. No information available. <u>he substance or mixture</u> Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Wear self contained breathing apparatus for fire fighting if necessary. |
| <u>5.1. Extinguishing media</u> Suitable Extinguishing Media Unsuitable Extinguishing Media <u>5.2. Special hazards arising from the</u> Specific Hazards Arising from the Chemical <u>5.3. Advice for firefighters</u> Special Protective Equipment for Fire-fighters <u>Section 6: ACCIDENTAL RE</u> <u>6.1. Personal precautions, protect</u> | Use CO2, dry chemical, or foam. No information available. he substance or mixture_ Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Wear self contained breathing apparatus for fire fighting if necessary. ELEASE MEASURES ive equipment and emergency procedures_ Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate |
| <u>5.1. Extinguishing media</u> Suitable Extinguishing Media Unsuitable Extinguishing Media <u>5.2. Special hazards arising from the</u> Specific Hazards Arising from the Chemical <u>5.3. Advice for firefighters</u> Special Protective Equipment for Fire-fighters <u>Section 6: ACCIDENTAL RE</u> <u>6.1. Personal precautions, protect</u> Personal Precautions | Use CO2, dry chemical, or foam. No information available. he substance or mixture Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Wear self contained breathing apparatus for fire fighting if necessary. KLEASE MEASURES ive equipment and emergency procedures Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. |

6.2. Environmental precautions

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| Environmental Precautions | Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. |
| 6.3. Methods and material for cont | ainment and cleaning up |
| Methods for Containment | Dike far ahead of spill; use dry sand to contain the flow of material. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). |
| Methods for cleaning up | Use clean non-sparking tools to collect absorbed material. Dike far ahead of spill for later disposal. |
| 6.4. Reference to other sections | |
| Reference to other sections | See Section 12: ECOLOGICAL INFORMATION Section 7: HANDLING AND STORAGE Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION |
| Section 7: HANDLING AND | STORAGE |
| 7.1. Precautions for safe handling | _ |
| Advice on safe handling | Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take precautionary measures against static charges. Use explosion-proof electrical/ ventilating/ lighting/ equipment. |
| 7.2. Conditions for safe storage, in | cluding any incompatibilities |
| General Hygiene Considerations | Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. |
| Storage Conditions | Keep only in the original container/package in a cool well-ventilated place. Protect from moisture. |
| Incompatible Materials | Strong acids and bases |
| 7.3. Specific end use(s) | |
| OTHER INFORMATION | No information available. |
| 7.4. References to Other Sections | |
| Reference to other sections | See Section 12: ECOLOGICAL INFORMATION. Section 7: HANDLING AND STORAGE. Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. |
| Section 8: EXPOSURE CON | TROLS/PERSONAL PROTECTION |

8.1. Control parameters

<u>Exposure Limits</u> This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

| Chemical Name | New Zealand | Australia | European Union |
|---------------------|------------------------------|-----------------------------|-----------------------------|
| Acetone | TWA: 500 ppm | 500 ppm TWA | TWA: 500 ppm |
| 67-64-1 | TWA: 1185 mg/m ³ | 1185 mg/m ³ TWA | TWA: 1210 mg/m ³ |
| | STEL: 1000 ppm | 1000 ppm STEL | _ |
| | STEL: 2375 mg/m ³ | 2375 mg/m ³ STEL | |
| Methyl ethyl ketone | TWA: 150 ppm | 150 ppm TWA | TWA: 200 ppm |
| 78-93-3 | TWA: 445 mg/m ³ | 445 mg/m ³ TWA | TWA: 600 mg/m ³ |
| | STEL: 300 ppm | 300 ppm STEL | STEL: 300 ppm |
| | STEL: 890 mg/m ³ | 890 mg/m ³ STEL | STEL: 900 mg/m ³ |
| Cyclohexanone | TWA: 25 ppm | 25 ppm TWA | TWA: 10 ppm |
| 108-94-1 | TWA: 100 mg/m ³ | 100 mg/m ³ TWA | TWA: 40.8 mg/m ³ |

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| | Skin | | STEL: 20 ppm STEL: 81.6 mg/m ³ S* |
|---------------------|---------------|-----------------------------|--|
| Chemical Name | ACGIH TLV | NIOSH IDLH | OSHA PEL |
| Acetone | STEL: 500 ppm | IDLH: 2500 ppm | TWA: 1000 ppm |
| 67-64-1 | TWA: 250 ppm | TWA: 250 ppm | TWA: 2400 mg/m ³ |
| | | TWA: 590 mg/m ³ | |
| Methyl ethyl ketone | STEL: 300 ppm | IDLH: 3000 ppm | TWA: 200 ppm |
| 78-93-3 | TWA: 200 ppm | TWA: 200 ppm | TWA: 590 mg/m ³ |
| | | TWA: 590 mg/m ³ | |
| | | STEL: 300 ppm | |
| | | STEL: 885 mg/m ³ | |
| Cyclohexanone | STEL: 50 ppm | IDLH: 700 ppm | TWA: 50 ppm |
| 108-94-1 | TWA: 20 ppm | TWA: 25 ppm | TWA: 200 mg/m ³ |
| | S* | TWA: 100 mg/m ³ | - |

| Derived No Effect Level (DNEL) | No information available |
|---|--|
| Predicted No Effect Concentration (PNEC) | No information available |
| OTHER INFORMATION | No information available |
| 8.2. Exposure controls | |
| Engineering Controls | Ensure adequate ventilation, especially in confined areas. |
| PPE - Personal Protection Equipm | ent |
| Eye/Face Protection Skin and Body Protection | Wear safety glasses with side shields (or goggles). Wear suitable protective clothing. No special technical protective measures are necessary under normal conditions. |
| Hand Protection | Wear suitable chemical resistant gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and various manufacturers. |
| Respiratory Protection | No protective equipment is needed under normal use conditions. Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of professional filter is recommended. |
| General Hygiene Considerations | Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. |

Environmental Exposure Controls Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| Appearance Color Odor Odor Threshold | Medium Viscosity Liquid Clear, colorless Solvent No information available | |
|--|--|----------------------------|
| <u>Property</u> pH Melting point / freezing point Boiling Point Flash Point | <u>Values</u> No information available No information available approx 66 °C / 150.8 °F approx -15 °C / 5 °F | <u>Remarks • Method</u> |
| Evaporation Rate Flammability (solid, gas) Flammability Limit in Air Upper Flammability Limit Lower Flammability Limit Vapor Pressure | No information available No information available 10.9 1.7 No information available | Not applicable for liquids |

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Vapor Density Relative Density Water Solubility Solubility in Other Solvents Partition Coefficient Autoignition Temperature Decomposition Temperature Kinematic Viscosity Dynamic Viscosity Explosive Properties Oxidizing Properties

9.2. Other information Softening Point Molecular Weight Solvent content (%) Solid content (%) Density Bulk Density VOC No information available No information available Partially soluble No information available 321 °C / 609.8 °F No information available No information available

No information available No information available No information available approx 22 0.9 g/cm³ No information available > 300 g/L

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity Stable under recommended storage conditions. 10.2. Chemical stability Stability Stable under recommended storage conditions 10.3. Possibility of hazardous reactions Possibility of Hazardous Reactions None under normal processing. **Hazardous Polymerization** None under normal processing. 10.4. Conditions to avoid Conditions to avoid Keep away from heat, sparks and flames. Protect from moisture. 10.5. Incompatible materials **Incompatible Materials** Strong acids and bases. 10.6. Hazardous decomposition products None under normal use conditions. Hazardous decomposition products

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

Acute Toxicity

| Product Information | Product does not present an acute toxicity hazard based on known or supplied information. |
|---------------------|---|
| | |
| Inhalation | No data available. |
| Eye contact | No data available. |
| Skin Contact | No data available. |
| Ingestion | No data available. |

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Numerical measures of toxicity

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity 51.67199 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 53.33799 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|-------------------------------------|-----------------------|----------------------|
| Acetone 67-64-1 | = 5800 mg/kg(Rat) | >15800 mg/Kg (rat) | = 79 mg/l(Rat) 4 h |
| Methyl ethyl ketone 78-93-3 | = 2483 mg/kg (Rat) | = 5000 mg/kg (Rabbit) | = 11700 ppm (Rat)4 h |
| Cyclohexanone 108-94-1 | = 1535 mg/kg (Rat) | = 947 mg/kg (Rabbit) | = 8000 ppm (Rat)4 h |
| Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW 25068-38-6 | LD50 (rat) > 2000 mg/kg OECD 420 | >2000 mg/Kg (rat) | - |

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

| Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Sensitization Germ Cell Mutagenicity Reproductive Toxicity STOT - Single Exposure STOT - Repeated Exposure | No information available. No information available. No information available. No information available. No information available. |
|--|---|
| STOT - Repeated Exposure Target Organ Effects Aspiration hazard Carcinogenicity | No information available. Central nervous system, Eyes, Kidney, Liver, Respiratory system, Skin. No information available. No information available. |
| Carcinogenicity | no mormation available. |

| Chemical Name | IARC | China | Japan |
|--------------------------------|-------------------------------|--------------------------------|-------|
| Cyclohexanone | Group 3 | - | - |
| IARC (International Agency for | Group 3 - Not Classifiable as | s to Carcinogenicity in Humans | |

Research on Cancer)

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity

Product Information None known.

Component Information

Data obtained on the component(s) include

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|---|--|---|--|
| Acetone 67-64-1 | - | LC50 96 h 4.74 - 6.33 mL/L (Oncorhynchus mykiss) | EC50 48 h 10294 - 17704 mg/L (Daphnia magna Static) |
| Methyl ethyl ketone 78-93-3 | EC50=1972 mg/l (Pseudokirchneriella subcapitata) | LC50 96 h 3130 - 3320 mg/L (Pimephales promelas flow-through) | EC50 48 h > 308 mg/L (Daphnia magna) |
| Cyclohexanone 108-94-1 | EC50 96 h = 20 mg/L (Chlorella vulgaris) | LC50 96 h 481 - 578 mg/L (Pimephales promelas flow-through) | EC50 24 h = 800 mg/L (Daphnia magna) |
| Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW 25068-38-6 | EC50 (72h) = 9.4 mg/L (Scenedesmus capricornutum) EPA-660/3-75-009 | 1.2 mg/l 96Hr (Oncorhynchus mykiss) | 2.7 mg/l 48hr Daphia Magna |

12.2. Persistence and degradability

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No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available. Endocrine Disruptor Information

| Chemical Name | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Endocrine disrupting potential |
|---|---|---|--------------------------------|
| Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW | Group III Chemical | - | - |

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

| Waste from Residues/Unused | Disposal should be in accordance with applicable regional, national and local laws and |
|----------------------------|--|
| Products | regulations. |
| | |

Contaminated Packaging Improper disposal or reuse of this container may be dangerous and illegal.

Section 14: TRANSPORTATION INFORMATION

| IMDG UN/ID No Proper Shipping Name Hazard Class Packing Group EmS-No Limited Quantity (LQ) Description | UN1133 Adhesives 3 II F-E, S-D 5 L UN1133, Adhesives, 3, II, (-15°C c.c.) |
|--|---|
| IATA_ UN/ID No Proper Shipping Name Hazard Class Packing Group ERG Code Limited Quantity (LQ) Special Provisions Description | UN1133 Adhesives 3 II 3L 1 L A3 UN1133, Adhesives, 3, II |
| ADR_ UN/ID No Proper Shipping Name Hazard Class Hazard Labels Packing Group Description Environmental Hazard | UN1133 Adhesives, Environmentally Hazardous 3 3 II UN1133, Adhesives, Environmentally Hazardous, 3, II, Yes |

(D/E)

| Limited Quantity (LQ) | 5 L |
|-------------------------|-------|
| Special Provisions | 640C |
| Classification Code | F1 |
| Tunnel Restriction Code | (D/E) |

Section 15: REGULATORY INFORMATION

National Regulations

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet No information available

Key Literature References and Sources for Data

No information available

| Prepared By | Product Safety & Regulatory Affairs |
|-----------------|--|
| Revision Date | 29-Oct-2017 |
| Revision Note | Not applicable. |
| Training Advice | Provide adequate information, instruction, and training for operator |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet