SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
GHS: The Globally Harmonized System of Classification and Labeling of Chemicals

MARLEY CLEAR
Revision Number 1.02

Revision date 10-Jun-2021
Supersedes Date: 29-Oct-2017

1. Identification

Product identifier
Product Name MARLEY CLEAR
Pure substance/mixture Mixture

Details of the supplier of the safety data sheet

Responsible Party
Bostik New Zealand Limited
19 Eastern Hutt Road Wingate,
Lower Hutt, New Zealand
Tel: 04-567 5119
Fax: 04-567 5412

Manufacturer
Bostik New Zealand Limited
19 Eastern Hutt Road Wingate,
Lower Hutt, New Zealand
Tel: 04-567 5119
Fax: 04-567 5412

E-mail address SDS.AP@Bostik.com

Emergency telephone number
Emergency Telephone 24 Hr: 0800 243 622
+64 4 917 9888
Poison Centre : 0800 764 766

Recommended use of the chemical and restrictions on use
Recommended use Adhesive
Restrictions on use No information available

2. Hazard(s) identification

Classification of the substance or mixture

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 (6.1D)
Skin corrosion/irritation	Category 2 (6.3A)
Serious eye damage/eye irritation	Category 1 (8.3A)
Skin sensitization	Category 1 (6.5B)
Specific target organ toxicity - Single exposure	Category 3 ([f])
Flammable liquids	Category 2 (3.1B)

Classification in parenthesis is applicable for New Zealand Hazard Classification

Label elements

Signal word Danger

Hazard statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H225 - Highly flammable liquid and vapor

Prevention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P264 - Wash face, hands and any exposed skin thoroughly after handling
P272 - Contaminated work clothing should not be allowed out of the workplace
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P240 - Ground/bond container and receiving equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P235 - Keep cool
P280 - Wear protective gloves/protective clothing/eye protection/face protection
Response

Inhalation
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
Skin
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P303 + P361 + P353 - IF ON SKIN (or hair): 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
Fire
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
Storage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
Disposal
P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

May be harmful if swallowed May be harmful in contact with skin In use, may form flammable/explosive vapor-air mixture

3. Composition/information on ingredients

Substance
Not applicable.

Mixture

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*

4. First-aid measures

Description of necessary first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed

	or concerned: Get medical advice/attention. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms	Burning sensation. Itching. Rashes. Hives. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/ or wheezing. Difficulty in breathing.

For emergency responders

Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	No information available.
Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or contains a sensitizer. May cause sensitization by skin contact.
Hazardous combustion products	Carbon oxides. Hydrogen chloride.

Special protective actions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid breathing vapors or mists.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders Use personal protection recommended in Section 8.

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash before reuse.
Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
See Section 8 for information on appropriate personal protective equipment

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up. Keep out of the reach of children. Protect from moisture.

Incompatible materials Strong acids Strong bases Strong oxidizing agents

8. Exposure controls/personal protection

Occupational exposure limits

Chemical name	New Zealand	Australia	European Union
Acetone 67-64-1	TWA: 500 ppm TWA: 1185 mg/m³ STEL: 1000 ppm STEL: 2375 mg/m³	500 ppm TWA 1185 mg/m³ TWA 1000 ppm STEL 2375 mg/m³ STEL	TWA: 500 ppm TWA: 1210 mg/m³
Methyl ethyl ketone 78-93-3	TWA: 150 ppm TWA: 445 mg/m³ STEL: 300 ppm STEL: 890 mg/m³	150 ppm TWA 445 mg/m³ TWA 300 ppm STEL 890 mg/m³ STEL	TWA: 200 ppm TWA: 600 mg/m³ STEL: 300 ppm STEL: 900 mg/m³
Cyclohexanone 108-94-1	TWA: 25 ppm TWA: 100 mg/m³ Skin	25 ppm TWA 100 mg/m³ TWA	TWA: 10 ppm TWA: 40.8 mg/m³ STEL: 20 ppm STEL: 81.6 mg/m³ *

Chemical name	ACGIH TLV	NIOSH	OSHA PEL
Acetone 67-64-1	STEL: 500 ppm TWA: 250 ppm	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m³	TWA: 1000 ppm TWA: 2400 mg/m³ (vacated) TWA: 750 ppm (vacated) TWA: 1800 mg/m³ (vacated) STEL: 2400 mg/m³

			The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors. (vacated) STEL: 1000 ppm
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m³ STEL: 300 ppm STEL: 885 mg/m³	TWA: 200 ppm TWA: 590 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m³
Cyclohexanone 108-94-1	STEL: 50 ppm TWA: 20 ppm S*	IDLH: 700 ppm TWA: 25 ppm TWA: 100 mg/m³	TWA: 50 ppm TWA: 200 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 100 mg/m³ (vacated) S*

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

Engineering controls
Ensure adequate ventilation, especially in confined areas. Vapors/aerosols must be exhausted directly at the point of origin.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.
Hand protection Wear protective gloves. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature.
Skin and body protection Antistatic footwear. Wear fire/flame resistant/retardant clothing. Gloves made of plastic or rubber. Suitable protective clothing. Apron.
Respiratory protection In case of inadequate ventilation wear respiratory protection. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Recommended filter type: Organic gases and vapors filter conforming to EN 14387.

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Paste Liquid
Color Clear, colorless
Physical state Liquid
Odor Solvent
Odor threshold No information available

Property	Values	Remarks • Method
pH	No data available	Not applicable Insoluble in water
pH (as aqueous solution)	No data available	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	66 °C	
Flash point	-15 °C	
Evaporation rate	No data available	
Flammability	No data available	
Flammability Limit in Air		
Upper flammability or explosive limits	10.9	
Lower flammability or explosive limits	1.7	
Vapor pressure	No data available	

Relative vapor density	No data available
Relative density	No data available
Water solubility	partially soluble
Solubility(ies)	No data available
Partition coefficient	No data available
Autoignition temperature	321 °C
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available

Additional information

Oxidizing properties	No information available
Solid content (%)	approx 22
Density	0.9 g/cm³

10. Stability and reactivity

Stability Stable under normal conditions.

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks. Excessive heat. Protect from moisture.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Symptoms Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/ or wheezing.

Acute Toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	4,866.30 mg/kg
ATEmix (dermal)	3,487.20 mg/kg
ATEmix (inhalation-dust/mist)	4.76 mg/l

ATEmix (inhalation-vapor) 34.90 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetone	=5800 mg/kg (Rattus)	>15800 mg/Kg (Rattus)	=79 mg/l(Rattus) 4 h
Methyl ethyl ketone	=2483 mg/kg (Rattus)	= 5000 mg/kg (Oryctolagus cuniculus)	=11700 ppm (Rattus) 4 h
Cyclohexanone	=1535 mg/kg (Rattus)	= 947 mg/kg (Oryctolagus cuniculus)	=8000 ppm (Rattus) 4 h
Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW	LD50 (Rattus) > 2000 mg/kg OECD 420	>2000 mg/Kg (Rattus)	-

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Component Information					
Methyl ethyl ketone (78-93-3)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			irritant

Respiratory or skin sensitization May cause sensitization by skin contact.

Component Information			
Acetone (67-64-1)			
Methyl ethyl ketone (78-93-3)			
Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitization	Guinea pig	Dermal	No sensitization responses were observed

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	China	IARC
Cyclohexanone	-	Group 3

Legend

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) Based on available data, the classification criteria are not met.

Target organ effects Central nervous system. Eyes. Kidney. Liver. Respiratory system. Skin.
Aspiration hazard Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
Acetone	-	LC50 96 h 4.74 - 6.33 mL/L (Oncorhynchus mykiss)	EC50 48 h 10294 - 17704 mg/L (Daphnia magna Static)
Methyl ethyl ketone	EC50=1972 mg/l (Pseudokirchneriella subcapitata)	LC50: 3130 - 3320mg/L (96h, Pimephales promelas)	EC50 48 h > 308 mg/L (Daphnia magna)
Cyclohexanone	EC50: =20mg/L (96h, Chlorella vulgaris)	LC50 96 h 481 - 578 mg/L (Pimephales promelas flow-through)	EC50: =800mg/L (24h, Daphnia magna)
Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW	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

Persistence and degradability No information available.

Bioaccumulative potential There is no data for this product.

Component Information

Chemical name	Partition coefficient
Acetone	-0.24
Methyl ethyl ketone	0.3
Cyclohexanone	0.86
Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW	3.26

Chemical name	PBT and vPvB assessment
Acetone 67-64-1	The substance is not PBT / vPvB
Methyl ethyl ketone 78-93-3	The substance is not PBT / vPvB
Cyclohexanone 108-94-1	The substance is not PBT / vPvB PBT assessment does not apply
Bisphenol-A-Epichlorhydrin Epoxy resin <= 700 MW 25068-38-6	The substance is not PBT / vPvB

Mobility in soil No information available.

13. Disposal considerations

Waste chemicals
Waste from residues/unused products Should not be released into the environment Dispose of in accordance with local regulations Dispose of waste in accordance with environmental legislation

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers

14. Transport information

IMDG
UN number or ID number UN1133
UN proper shipping name Adhesives

Description	UN1133, Adhesives, 3, II, (-15°C c.c.)
Transport hazard class(es)	3
Packing group	II
Marine pollutant	NP
Limited Quantity (LQ)	5 L
EmS-No	F-E, S-D

IATA

UN number or ID number	UN1133
UN proper shipping name	Adhesives
Description	UN1133, Adhesives, 3, II
Transport hazard class(es)	3
Packing group	II
Special Provisions	A3
Limited Quantity (LQ)	1 L
ERG Code	3L

ADR

UN number or ID number	UN1133
Proper Shipping Name	Adhesives
Transport hazard class(es)	3
Labels	3
Packing group	II
Description	UN1133, Adhesives, 3, II, (D/E)
Limited Quantity (LQ)	5 L
Special Provisions	640C
Classification code	F1
Tunnel restriction code	(D/E)

Special precautions for user
Please refer to the applicable dangerous goods regulations for additional information

15. Regulatory information

National regulations

ERMA Group HSR002662

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

16. Other information

Abbreviations and acronyms

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure

STOT SE	Specific target organ toxicity - Single exposure

Prepared By	Product Safety & Regulatory Affairs
Revision date	10-Jun-2021
Revision note	The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key literature references and sources for data used to compile the SDS
New Zealand's Chemical Classification and Information Database (CCID)
World Health Organization

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