SAFETY DATA SHEET



EMULSION 150 WHITE

Section 1. Identification

Product identifier : EMULSION 150 WHITE

Product code : FWE250001XXX

Other means of : Not available.

identification

Product type : Liquid.

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

Identified uses
Not applicable.

Uses advised against

Not applicable.

Supplier's details : Berger Paints Singapore Pte Ltd

22 Benoi Sector, Singapore - 629854 Email: Berger@bergeronline.com.sg

Tele: +65 6801 7000 Fax: +65 6265 6356

Emergency telephone number (with hours of

operation)

: Tele: +65 9636 4852

Section 2. Hazards identification

Classification of the substance or mixture

: Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the

aquatic environment: 84.4%

GHS label elements, including precautionary statements

Signal word : No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of : Not available.
identification

Ingredient name	%	CAS number
propane-1,2-diol	≤3	57-55-6

Date of issue/Date of revision	: 11/23/2024	Date of previous issue	: 3/3/2021	Version : 3.1	1/10
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Section 3. Composition/information on ingredients

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.

Chemical formula : Not applicable.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with pl

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation

occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention if symptoms occur.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed

person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

Hammel and the second

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide metal oxide/oxides

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 2/10

Section 5. Fire-fighting measures

Special protective actions 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.

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 spilled material. Put on appropriate personal protective equipment.

For emergency responders:

If specialized 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 spilled 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 materials 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. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. 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). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures
Advice on general
occupational hygiene

- : 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. 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 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 3/10

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

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: safety glasses with side-shields.

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.

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.

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 and safety characteristics

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

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

PH : Not available.

Melting point/freezing point : Not available.

Boiling point, initial boiling : Not available.

point, and boiling range

Flash point :

Date of issue/Date of revision: 11/23/2024Date of previous issue: 3/3/2021Version: 3.14/10

Section 9. Physical and chemical properties and safety characteristics

		Closed c	cup Open cup		ıp	
Ingredient name	°C	°F	Method	°C	°F	Method
Paraffin oils (petroleum), catalytic dewaxed heavy				98 to 344	208.4 to 651.2	EN ISO 2719
propane-1,2-diol	99	210.2				
isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	122	251.6	ASTM 3278			

Flammability Lower and upper explosion limit/flammability limit

: Not available. : Not available.

Vapor pressure

	Va	por Pressure	re at 20°C Vapor pressure at		e at 50°C	
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3				
water	17.5	2.3				
propane-1,2-diol	0.15	0.02	EU A.4			
Paraffin oils (petroleum), catalytic dewaxed heavy	<0.07501	<0.01	ASTM D 5191			
isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	0.0098	0.0013	EU A.4			
diuron (ISO)	0.000000006	0.0000000008	OECD 104	0.0000013	0.00000017	OECD 104

Relative vapor density : Not available. **Relative density** : Not available.

: 1.41 g/cm³ [25°C (77°F)] **Density**

Solubility in water : Not available.

: Yes. Miscible with water

Partition coefficient: n-: Not applicable.

octanol/water

Auto-ignition temperature

Ingredient name	°C	°F	Method
propane-1,2-diol	371	699.8	
isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol	393	739.4	
diuron (ISO)	401	753.8	EU A.16

Decomposition temperature : Not available. **Viscosity** : Not available.

Particle characteristics

: Not applicable. Median particle size

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 : No specific data.

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version: 3.1

Section 10. Stability and reactivity

Incompatible materials: No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

SADT : Not available.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
propane-1,2-diol	LD50 Dermal	Rabbit	20800 mg/kg	-
	LD50 Oral	Rat	20 g/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propane-1,2-diol	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500	-
				mg	
	Skin - Mild irritant	Human	-	168 hours	-
				500 mg	
	Skin - Mild irritant	Woman	-	96 hours 30	-
				%	
	Skin - Moderate irritant	Child	-	96 hours 30	-
				% C	
	Skin - Moderate irritant	Human	-	72 hours 104	-
				mg I	

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contactInhalationNo known significant effects or critical hazards.No known significant effects or critical hazards.

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 6/10

EMULSION 150 WHITE

Section 11. Toxicological information

Skin contactIngestionNo known significant effects or critical hazards.No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)		Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
propane-1,2-diol	20000	20800	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
propane-1,2-diol	Acute EC50 >110 ppm Fresh water Acute LC50 1020000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> Crustaceans - <i>Ceriodaphnia</i> <i>dubia</i>	48 hours 48 hours
	Acute LC50 710000 μg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence/degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
propane-1,2-diol	-1.07	-	Low

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (Koc)

: 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 minimized 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA	ADR/RID	ADN
UN number	Not available.	Not available.	Not available.	UN3082	UN3082
UN proper shipping name	Not available.	Not available.	Not available.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PAINT)
Transport hazard class (es)	Not available.	Not available.	Not available.	9	9
Packing group	-	-	-	III	III
Environmental hazards	No.	No.	No.	Yes.	Yes.

Additional information

IATA

: The environmentally hazardous substance mark may appear if required by other transportation regulations.

ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

Tunnel code (-)

ADN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

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.

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 8/10

Section 14. Transport information

Transport in bulk according: Not available.

to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

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.

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Eurasian Economic Union: Russian Federation inventory: Not determined.

Japan : Japan inventory (CSCL): Not determined.

Japan inventory (ISHL): Not determined.

New Zealand : Not determined. **Philippines** : Not determined. Republic of Korea : Not determined. : Not determined. **Taiwan Thailand** Not determined. : Not determined. **Turkey United States** : Not determined. **Viet Nam** : Not determined.

Section 16. Other information

<u>History</u>

Date of printing : 11/23/2024 Date of issue/Date of : 11/23/2024

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Date of previous issue : 3/3/2021 Version : 3.1

Key to abbreviations : 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,

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 9/10

EMULSION 150 WHITE

Section 16. Other information

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations

Procedure used to derive the classification

Not classified.

References: Not available.

✓ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 11/23/2024 Date of previous issue : 3/3/2021 Version : 3.1 10/10