

1. IDENTIFICATION

Product Name DBNPA 20% Liquid

Other Names DBNPA 20% Liq. in PEG200; XF-993P

Used to control microbial, fungal and algal growth in cooling towers and evaporative condensers, pulp and paper mill

effluents, oil-recovery systems, metal-cutting coolants, air conditioning systems.

Chemical Family No Data Available
Chemical Formula Unspecified

Chemical Name Contains: 2,2-Dibromo-3-nitrilopropionamide; PEG200; Paraformaldehyde

Product Description No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 6



Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of

Chemicals (GHS)

Hazard Categories Acute Toxicity (Oral) - Category 5

Acute Toxicity (Dermal) - Category 5 Acute Toxicity (Inhalation) - Category 5 Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Irritation - Category 2A

Sensitisation (Skin) - Category 1

Long-term Hazard To The Aquatic Environment - Category 2

Pictograms





Signal Word Warning

Hazard Statements H303 + H313 + H333 May be harmful if swallowed, in contact with skin or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements Prevention P261 Avoid breathing fumes/mists/vapours/spray.

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

P273 Avoid release to the environment.

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

Response P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice.
P337 + P313 If eye irritation persists: Get medical advice.

P391 Collect spillage.

P362 + P364 Take off contaminated clothing and wash it before reuse.

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

Disposal P501 Dispose of contents/container in accordance with local / regional / national /

international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods ClassificationNOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
PEG 200	Unspecified	Unspecified	55 - 65 %
Water	H2O	7732-18-5	20 - 25 %
2,2-Dibromo-3-nitrilopropionamide	C3H2Br2N2O	10222-01-2	>=20 - 22 %
Contains: Paraformaldehyde	(CH2O)x	30525-89-4	0.5 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give

anything by mouth to an unconscious person.

IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting Eye

> the upper and lower lids. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. If eye irritation persists, get medical advice/attention.

Skin IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately wash skin and hair with mild

soap and running water for at least 15 minutes. Call a Poison Centre or doctor/physician for advice. If skin irritation

occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or

doctor/physician for advice. Apply artificial respiration if not breathing. Administer oxygen if breathing is difficult.

Advice to Doctor Symptoms of poisoning may occur even after several hours; therefore, medical observation is suggested for at least 48

hours after the accident. No specific antidote. Treat symptomatically and supportively. Ensure that medical personnel are

aware of the material(s) involved and take precautions to protect themselves.

Exposure

Medical Conditions Aggravated by May cause an allergic skin reaction.

5. FIRE FIGHTING MEASURES

General Measures If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.

Dike fire-control water for later disposal.

Flammability Conditions Product is not flammable; may burn but does not ignite readily.

Extinguishing Media Use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction. Do not scatter spilled material with high-

pressure water streams.

Fire and Explosion Hazard Containers may explode when heated.

Hazardous Products of

Combustion

Fire may produce irritating, corrosive and/or toxic gases, including Hydrogen bromide (HBr), Bromine (Br2) and Nitrogen

oxides (NOx).

*Do not inhale combustion vapours!

Contain runoff from fire control or dilution water - Runoff may cause pollution. **Special Fire Fighting Instructions**

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only

provide limited protection.

Flash Point No Data Available **Lower Explosion Limit** No Data Available **Upper Explosion Limit** No Data Available **Auto Ignition Temperature** No Data Available **Hazchem Code** No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure Ensure adequate ventilation. ELIMINATE all ignition sources. Do not touch or walk through spilled material. Avoid

breathing mist/vapours and contact with eyes, skin and clothing.

Clean Up Procedures Collect recoverable product in suitable receptacles or pick up with sand or other non-combustible absorbent material and

place into containers for later disposal (see SECTION 13).

Containment Stop leak if safe to do so – Prevent entry into waterways, sewers, basements or confined areas.

Decontamination No information available.

Environmental Precautionary

Measures

Spillages and decontamination runoff should be prevented from entering drains and waterways. Inform respective

authorities in case of seepage into watercourse or sewage system.

Evacuation Criteria Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher

ground.

7. HANDLING AND STORAGE

Handling Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure

adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing

mist/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Take precautionary measures against static

discharge. Avoid release to the environment - Collect spillage (see SECTION 6).

Storage Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed. Keep away from heat

and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10).

Container Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General No specific exposure standards are available for this product.

Exposure Limits No Data Available

Biological Limits No information available.

Engineering Measures A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust

ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing

dispersion of it into the general work area.

Personal Protection Equipment - Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: Organic

vapour/particulate (A-P) filter respirator (refer to AS/NZS 1715 & 1716).

- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical safety goggles.

- Hand protection: Wear protective gloves. Recommended: Impervious gloves.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls,

safety shoes.

Special Hazards Precaustions No information available.

Work Hygienic Practices Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of work. Take off

contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the

workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Appearance Clear liquid

Odour No information available.

Colour Yellow to amber 2.0 - 5.0 (1% solution) рΗ **Vapour Pressure** No Data Available **Relative Vapour Density** No Data Available **Boiling Point** No Data Available **Melting Point** No Data Available **Freezing Point** No Data Available Soluble 25°C Solubility **Specific Gravity** 1.19 - 1.29

Flash Point

Auto Ignition Temp

No Data Available

Evaporation Rate

Bulk Density

No Data Available

Corrosion Rate

No Data Available

No Data Available

Decomposition Temperature >=160 °C

No Data Available Density **Specific Heat** No Data Available **Molecular Weight** No Data Available **Net Propellant Weight** No Data Available **Octanol Water Coefficient** No Data Available **Particle Size** No Data Available **Partition Coefficient** No Data Available **Saturated Vapour Concentration** No Data Available Vapour Temperature No Data Available Viscosity No Data Available **Volatile Percent** No Data Available **VOC Volume** No Data Available

Additional Characteristics No information available.

Potential for Dust Explosion Not applicable.

Fast or Intensely Burning

Characteristics

No information available.

Flame Propagation or Burning

Rate of Solid Materials

Non-Flammables That Could

Contribute Unusual Hazards to a Fire

No information available.

No information available.

Properties That May Initiate or Contribute to Fire Intensity

Product is not flammable; may burn but does not ignite readily.

Reactions That Release Gases or

Vapours

Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Hydrogen bromide (HBr), Bromine (Br2)

and Nitrogen oxides (NOx).

Release of Invisible Flammable

Vapours and Gases

No information available.

10. STABILITY AND REACTIVITY

General Information No dangerous reactions known.

Chemical Stability Stable under normal temperatures and pressures.

Conditions to Avoid Avoid exposure to light. Keep away from heat and sources of ignition.

Materials to Avoid Incompatible/reactive with oxidizing agents, reducing agents, alkalis, acid chlorides and acid anhydrides.

Hazardous Decomposition

Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Hydrogen bromide (HBr), Bromine (Br2)

Products

and Nitrogen oxides (NOx).

Hazardous Polymerisation No information available.

11. TOXICOLOGICAL INFORMATION

General Information - Acute toxicity: May be harmful if swallowed, in contact with skin and if inhaled.

- Skin irritation/corrosion: Causes skin irritation. May have a drying effect on skin; frequent or prolonged contact may

cause cracking and flaking of the skin.

- Eye damage/irritation: Causes serious eye irritation.

- Respiratory/skin sensitisation: May cause an allergic skin reaction.

- Germ cell mutagenicity: No information available.

- Carcinogenicity: No information available.

Reproductive toxicity: No information available.STOT (single exposure): No information available.

- STOT (repeated exposure): No information available.

- Aspiration toxicity: No information available.

Acute

Ingestion Acute toxicity (Oral):

- LD50, Rat: >2,000 mg/kg [Product Test Data; Supplier's SDS].

Other Acute toxicity (Dermal):

- LD50, Rat: >2,000 mg/kg [Product Test Data; Supplier's SDS].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity Aquatic toxicity:

COMPONENT: 2,2-Dibromo-3-nitrilopropionamide (DBNPA):

- LC50, Fish (Rainbow trout, Fathead minnow; Sheepshead minnow; Bluegill sunfish): 1.8 - 3.3 mg/kg (96 h) [Supplier's

Product contains organic halogens, may contribute to AOX. Toxic to aquatic life with long lasting effects - Prevent entry

SDS].

Persistence/Degradability

No information available.

Environmental Fate

Mobility

No information available.

into soils, drains and waterways.

N : 6 ... 9.11

Bioaccumulation Potential

No information available.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Dispose of contents/container in accordance with local/regional/national regulations. This product must not be disposed

of together with household garbage.

Special Precautions for Land Fill

No information available.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name

DBNPA 20% Liquid

Class

No Data Available

Subsidiary Risk(s)

No Data Available

EPG 47 Low To Moderate Hazard Substances

UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available

Special Provision AU01

CommentsNot regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle

exceeding 500 kg(L) or IBCs.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2,2-Dibromo-3-

nitrilopropionamide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

EPG 47 Low To Moderate Hazard Substances

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2,2-Dibromo-3-

nitrilopropionamide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

EPG 47 Low To Moderate Hazard Substances

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2,2-Dibromo-3-

nitrilopropionamide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

ERG 171 Substances (Low to Moderate Hazard)

UN Number 3082

Hazchem 3Z Pack Group III

Special Provision No Data Available

Sea Transport IMDG Code

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2,2-Dibromo-3-

nitrilopropionamide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

EMS F-A, S-F Marine Pollutant Yes

Air Transport

IATA DGR

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2,2-Dibromo-3-

nitrilopropionamide)

Class 9 Miscellaneous Dangerous Goods and Articles

Subsidiary Risk(s) No Data Available

 UN Number
 3082

 Hazchem
 3Z

 Pack Group
 III

Special Provision No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods

by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information PARAFORMALDEHYDE

Poisons Schedule (Aust) Schedule 6

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed

National/Regional Inventories

Australia (AIIC) Listed

Canada (DSL) Listed

Canada (NDSL) Not Determined

China (IECSC) Listed

Europe (EINECS) Listed

Europe (REACh) Not Determined

Japan (ENCS/METI) Listed

Korea (KECI) Listed

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Not Determined

Philippines (PICCS) Listed

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Listed

16. OTHER INFORMATION

Related Product Codes DIBRNL2200, DIBRNL2220, DIBRNL2225, DIBRNL2230, DIBRNL4300, DIBRNL4300, DIBRNL6220, DIBRNL6230,

DIBRNL6620

Revision 5

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 Carbon Dioxide

COD Chemical Oxygen Demand **deg C (°C)** Degrees Celcius

EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Farenheit

g Grams

g/cm³ Grams per Cubic Centimetre

g/I Grams per Litre

HSNO Hazardous Substance and New Organism **IDLH** Immediately Dangerous to Life and Health **immiscible** Liquids are insoluable in each other.

inHg Inch of Mercury
inH2O Inch of Water

K Kelvin **kg** Kilogram

kg/m³ Kilograms per Cubic Metre

Ib Pound

LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.

LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.

Itr or L Litre

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Heath and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight