

Revision date 09-Apr-2024

SAFETY DATA SHEET

Version 4

| Section 1: Identification | | |
|--|--|--|
| Product identifier | | |
| Product name | Pvul-HF™ | |
| Product No | R3150 | |
| Other means of identification | | |
| Synonyms | None | |
| Pure substance/mixture | Mixture | |
| Recommended use of the chemical and restrictions on use | | |
| Recommended use | This product is for research and development only. | |
| Uses advised against | No information available. | |
| Details of manufacturer or importer | | |
| <u>Supplier</u> New England BioLabs (Australia) Pty Ltd 22/270 Ferntree Gully Road Notting Hill, VIC 3168 | | |
| For further information, please contact | | |
| Contact Point | Product Safety Department | |
| E-mail address | info.au@neb.com | |
| Emergency telephone number | | |
| Company Phone Number | 978-927-5054, 800-632-5227 (toll free) | |
| 24 Hour Emergency Phone Number Australian Poisons Information: | Chemtrec +65 3163 8374 131 126 | |

Section 2: Hazard(s) identification

GHS Classification Not classified

Label elements

Hazard statements Not classified

Other hazards which do not result in classification

No information available.

Section 3: Composition and information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health

| Chemical name | CAS No. | Weight-% |
|---------------------------|-------------|----------|
| Non-hazardous ingredients | Proprietary | Balance |

Section 4: First aid measures

Description of first aid measures

| Inhalation | Remove to fresh air. | |
|--|--|--|
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. | |
| Skin contact | Wash skin with soap and water. | |
| Ingestion | Rinse mouth. | |
| Most important symptoms and effects, both acute and delayed | | |
| Symptoms | No information available. | |
| Indication of any immediate medical attention and special treatment needed | | |
| Note to physicians | Treat symptomatically. | |

Section 5: Firefighting measures

Suitable extinguishing media

| Suitable extinguishing media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
|------------------------------|---|
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Special exposure hazards in a fire

Specific hazards arising from the No information available. chemical

Protective equipment and precautions for firefighters

Special protective equipment and
precautions for fire-fightersFirefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
Use personal protection equipment.

Section 6: Accidental release measures

| Personal precautions, protective equipment and emergency procedures | | |
|---|--|--|
| Personal precautions | Ensure adequate ventilation. | |
| For emergency responders | Use personal protection recommended in Section 8. | |
| Environmental precautions | | |
| Environmental precautions | See Section 12 for additional Ecological Information. | |
| Methods and material for containment and cleaning up | | |
| Methods for containment | Prevent further leakage or spillage if safe to do so. | |
| Precautions to prevent secondary hazards | | |
| Prevention of secondary hazards | Clean contaminated objects and areas thoroughly observing environmental regulations. | |
| Section 7: Handling and storage | | |
| Precautions for safe handling | | |
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. | |
| Conditions for safe storage, includi | Conditions for safe storage, including any incompatibilities | |
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. | |
| Incompatible materials | None known based on information supplied. | |

Section 8: Exposure controls and personal protection

Control parameters Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits Appropriate engineering controls Exposure limits

| Engineering controls | Showers Eyewash stations Ventilation systems. | |
|---|--|--|
| Individual protection measures, such as personal protective equipment | | |
| Eye/face protection | No special protective equipment required. | |
| Skin and body protection | No special protective equipment required. | |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. | |
| Environmental exposure controls | No information available. | |
| Thermal hazards | No information available. | |
| Section 0: Physical and chamical properties | | |

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

| Physical state Appearance Color Odor Odor threshold | Liquid Colorless No information available Mild. No information available | |
|---|--|------------------|
| Property | Values | Remarks • Method |
| pH | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling rang | eNo data available | None known |
| Flash point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive | No data available | |
| limits | | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | 392.8 °C | |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Other information | | |
| VOC content Particle characteristics | No information available No information available | |

Section 10: Stability and reactivity

Reactivity

| Reactivity | No information available. |
|--|---|
| Chemical stability | |
| Stability | Stable under normal conditions. |
| Explosion data Sensitivity to mechanical impac Sensitivity to static discharge | ct None. None. |
| Possibility of hazardous reactions | _ |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | |
| Conditions to avoid | None known based on information supplied. |
| Incompatible materials | |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products | |
| Hazardous decomposition products None known based on information supplied. | |

Section 11: Toxicological information

Acute toxicity

Information on likely routes of exposure

Product Information

| Inhalation | Specific test data for the substance or mixture is not available. |
|--------------|---|
| Eye contact | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion | Specific test data for the substance or mixture is not available. |
| Symptoms | No information available. |
| C . | |

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)22,410.90mg/kgATEmix (dermal)19,322.50mg/kgATEmix (inhalation-gas)99,999.00ppmATEmix (inhalation-vapor)99,999.00mg/lATEmix (inhalation-dust/mist)99,999.00mg/l

See section 16 for terms and abbreviations

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

Skin corrosion/irritation

No information available.

| Serious eye damage/eye irritation | No information available. |
|-----------------------------------|---------------------------|
| Respiratory or skin sensitization | No information available. |
| 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 hazard | No information available. |

Section 12: Ecological information

Ecotoxicity

| Ecoloxicity | |
|-------------------------------------|--|
| Aquatic ecotoxicity | The environmental impact of this product has not been fully investigated. |
| Unknown aquatic toxicity | 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment. |
| Terrestrial ecotoxicity | There is no data for this product. |
| Persistence and degradability | |
| Persistence and degradability | No information available. |
| Bioaccumulative potential | |
| Bioaccumulation | There is no data for this product. |
| <u>Mobility</u> | |
| Mobility | No information available. |
| Other adverse effects | |
| Other adverse effects | No information available. |
| Section 13: Disposal considerations | |

Waste treatment methods

| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
|--|---|
| | |

Contaminated packaging Do not reuse empty containers.

See section 8 for more information

Section 14: Transport information

| ADG | Not regulated |
|------|---------------|
| | Not regulated |
| IMDG | Not regulated |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

Section 15: Regulatory information

Regulatory information

National regulations

Australia

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP) No poisons schedule number allocated

Australian Industrial Chemicals Introduction Scheme (AICIS)

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

| International Inventories | |
|---------------------------|---|
| AIIC | Contact supplier for inventory compliance status. |
| NZIOC | Contact supplier for inventory compliance status. |
| TSCA | Contact supplier for inventory compliance status. |
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECI | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |

Legend:

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

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

Section 16: Other information

Revision date 09-Apr-2024

Revision Note

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
|---------|-----------------------------|------|----------------------------------|
| Ceiling | Maximum limit value | Sk* | Skin designation |
| C | Carcinogen | | |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) **Environmental Protection Agency** Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) National Institute of Technology and Evaluation (NITE) Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) Australian Industrial Chemicals Introduction Scheme (AICIS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization

End of Safety Data Sheet