SAFETY DATA SHEET

HD PROTEIN SPOTTER

ABERFORD HOLDINGS PTY LTD

Catalogue number: **PC496.05**
Version No: **2.3**
Issue date: **08/05/2023**
Safety Data Sheet according to WHS and ADG requirements.

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	HD PROTEIN SPOTTER
Product code	PC496.05
Pack sizes	5L
UN proper shipping name	ETHANOLAMINE

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

Relevant identified uses	Spotter for protein-based stains

Details of the supplier of the safety data sheet

Registered company name	ABERFORD HOLDINGS PTY LTD
Address	194D Zillmere Road, Boondall, QLD, 4034
Telephone	1800 638 639
Website	www.aberfordholdings.com.au
Email	enquiry@aberfordholdings.com.au

Emergency telephone number

Association / Organisation	Poisons Information Centre
Emergency telephone numbers	13 1126
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
GHS Classification	Skin Corrosion/Irritation Category 1, Serious Eye Damage Category 1,
	Classification drawn from HCIS and ECHA C&L Inventory.

Label elements

Hazard pictogram	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H314	Causes severe skin burns and eye damage.

Precautionary statement(s) Prevention

P280	Wear protective gloves and eye protection.
P260	Do not breathe mists
P264	Wash exposed skin thoroughly after handling.

Precautionary statement(s) Response

P305+P310+P351+P338	IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P310+P361+P353	IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
P304+P310+P340	IF INHALED: Immediately call a POISON CENTER or doctor. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
141-43-5	<10	monoethanolamine
1336-21-6	<10	ammonia solution
111-76-2	<10	ethylene glycol monobutyl ether
7320-34-5	<10	tetrapotassium pyrophosphate
2235-54-3	<10	ammonium lauryl sulfate
Trade secret	<10	proprietary surfactant

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: Obtain medical advice / attention without delay Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If necessary, transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

EYE:

Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media	The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas

Special hazards arising from the substrate or mixture

Fire incompatibility	None known

Advice for firefighters

Fire fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses Use firefighting procedures suitable for surrounding area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use. Slight hazard when exposed to heat, flame and oxidisers.
Fire/Explosion Hazard	Non-combustible. Not considered to be a significant fire risk. Expansion or decomposition on heating may lead to violent rupture of containers. Decomposes on heating and may produce toxic fumes of carbon monoxide (CO), carbon dioxide (CO_2) and other pyrolysis products typical of burning organic material May emit corrosive fumes.
HAZCHEM	2R

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	Control personal contact with the substance, by using protective equipment as required. Prevent spillage from entering drains or water ways. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labelled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.
PPE	Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. **DO NOT** allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, **DO NOT** eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers.
Other information	Store away from incompatible materials.

Conditions for safe storage, including any incompatibilities.

Suitable container	Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	None known

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	monoethanolamine	ethanolamine	7.5 mg/m3 / 3 ppm	15 mg/m3 / 6 ppm	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butoxyethanol	96.9 mg/m3 / 20 ppm	242 mg/m3 / 50 ppm	Not Available	Sk

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
monoethanolamine	ethanolamine	6 ppm	6 ppm	1,000 ppm
ethylene glycol monobutyl ether	2-Butoxyethanol	20 ppm	20 ppm	700 ppm
potassium pyrophosphate	Tetrapotassium diphosphorate	61 mg/m3	680 mg/m3	1,200 mg/m3

Ingredient	Original IDLH	Revised IDLH
monoethanolamine	1,000 ppm	30 ppm
ethylene glycol monobutyl ether	700 ppm	700 [Unch] ppm
potassium pyrophosphate	Not available	Not available

Exposure controls

Appropriate engineering controls	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
Personal protection	
Eye and face protection	Safety glasses with side shields OR Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. Lens should be removed at the first signs of eye redness or irritation. - Lens should be removed in a clean environment only after workers have washed hands thoroughly.
Skin protection	See Hand protection below
Hands/feet protection	Wear chemical protective gloves. Butyl is recommended for this application
Body protection	See Other protection below
Other protection	Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear blue liquid

Physical state	Liquid	**Relative density (Water = 1)**	1.0
Odour	Ammoniacal	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Available
pH (as supplied)	11.9	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Available
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water (g/L)	Miscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Prolonged or regular minor exposure to the vapour may cause persistent irritation of the eyes, nose and upper respiratory tract.
Ingestion	The material has **NOT** been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause severe skin burns. Skin contact is not thought to have harmful health effects (as classified under EC Directives). Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	No applicable data.

Toxicological effects of ingredients

monoethanolamine	Acute toxicity	Oral LD50 (rat) 1089 mg/kg Dermal LD50 (rat) 2504 mg/kg Inhalation LC50 >1300 mg/m3 6h
	Skin corrosion/irritation	Causes severe skin burns and eye damage.
	Eye damage/irritation	Causes serious eye damage
	Respiratory/skin sensitization	No sensitizing effect
	Germ cell mutagenicity	The substance was not genotoxic in a test with mammals
	Carcinogenicity	Not carcinogenic
	Reproductive toxicity	Not classified
	STOT (single exposure)	May cause respiratory irritation
	STOT (repeated exposure)	The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies
	Aspiration toxicity	No aspiration hazard expected
ethylene glycol monobutyl ether	Acute toxicity	Oral LD50 (guinea pig) 1414 mg/kg Dermal LD50 (guinea pig) >2000 mg/kg Inhalation LC0 >3.1 mg/l>641 ppm 1h
	Skin corrosion/irritation	Causes skin irritation.
	Eye damage/irritation	Causes serious eye irritation.
	Respiratory/skin sensitization	Not classified No study available.
	Germ cell mutagenicity	Not classified
	Carcinogenicity	Not classified
	Reproductive toxicity	Not classified
	STOT (single exposure)	High concentrations may cause central nervous system depression
	STOT (repeated exposure)	Based on repeated exposure toxicity values, not classified
	Aspiration toxicity	Based on physico-chemical values or lack of human evidence. Not classified
tetrapotassium pyrophosphate	Acute toxicity	Oral LD50 (rabbit) >1000 mg/kg Dermal LD50 (rabbit) >4640 mg/kg
	Skin corrosion/irritation	Causes skin irritation. Irritation is likely to be more severe if the skin is moist or wet
	Eye damage/irritation	Causes serious eye irritation
	Respiratory/skin sensitization	EU/CLP • Classification criteria not met
	Germ cell mutagenicity	EU/CLP • Classification criteria not met
	Carcinogenicity	Does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens
	Reproductive toxicity	EU/CLP • Classification criteria not met
	STOT (single exposure)	EU/CLP • Classification criteria not met
	STOT (repeated exposure)	EU/CLP • Classification criteria not met
	Aspiration toxicity	EU/CLP • Classification criteria not met
ammonium lauryl sulfate	Acute toxicity	no data available
	Skin corrosion/irritation	May cause skin irritation
	Eye damage/irritation	May cause eye irritation
	Respiratory/skin sensitization	no data available
	Germ cell mutagenicity	no data available
	Carcinogenicity	no data available
	Reproductive toxicity	no data available
	STOT (single exposure)	no data available
	STOT (repeated exposure)	no data available
	Aspiration toxicity	no data available
proprietary surfactant	Acute toxicity	Oral LD50 (rat) 2546 mg/kg Dermal LD50 (rat) 1844 mg/kg
	Skin corrosion/irritation	Causes skin irritation
	Eye damage/irritation	Causes serious eye irritation
	Respiratory/skin sensitization	Not a skin sensitizer based on components
	Germ cell mutagenicity	There is no data available
	Carcinogenicity	No components are listed as carcinogens by IARC, ACGIH, OSHA or NTP above the threshold of 0.1%
	Reproductive toxicity	There is no data available
	STOT (single exposure)	There is no data available
	STOT (repeated exposure)	There is no data available
	Aspiration toxicity	There is no data available

ammonia solution	Acute toxicity	Oral LD50 (rat) 350 mg/kg Inhalation (human) 400 - 700 ppm causes severe irritation. 2000 - 3000 ppm may be fatal within 30 minutes. 10,000 ppm is immediately fatal
	Skin corrosion/irritation	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
	Eye damage/irritation	Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury
	Respiratory/skin sensitization	No Data Available
	Germ cell mutagenicity	No Data Available
	Carcinogenicity	No Data Available
	Reproductive toxicity	No Data Available
	STOT (single exposure)	No Data Available
	STOT (repeated exposure)	Repeated or prolonged exposure may result in bronchitis
	Aspiration toxicity	No Data Available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	Endpoint	Duration (Hr.)	Species	Value
monoethanolamine	LC50	96	Fish	2-70mg/L
	EC50	48	Crustacea	32.6mg/L
	EC50	72	Algae or other aquatic plants	2.1mg/L
	NOEC	504	Crustacea	0.85mg/L
ethylene glycol monobutyl ether	LC50	96	Fish	1-250mg/L
	EC50	48	Crustacea	>1-mg/L
	EC50	96	Algae or other aquatic plants	>1-mg/L
	NOEC	24	Crustacea	>1-mg/L
potassium pyrophosphate	LC50	96	Fish	>100mg/L
	EC50	48	Crustacea	>100mg/L
	EC50	72	Algae or other aquatic plants	>100mg/L
	NOEC	72	Algae or other aquatic plants	>100mg/L
ammonium lauryl sulfate	No data available	No data available	No data available	No data available
proprietary surfactant	LC50	96	Rainbow trout	32.15 mg/L
ammonia solution	LC50	96	Lepomis macrochirus (Bluegill sunfish)	0.87 mg/l
	LC50	96	Pimephales promelas (fathead minnow)	1.2 mg/l
	EC50	48	Daphnia magna (Water flea),	0.66 mg/l

Moderately toxic to fish and aquatic organisms.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
monoethanolamine	LOW	LOW
ethylene glycol monobutyl ether	LOW (Half-life = 56 days)	LOW (Half-life = 1.37 days)

Bio accumulative potential

Ingredient	Bioaccumulation
monoethanolamine	LOW (LogKOW = -1.31)
ethylene glycol monobutyl ether	LOW (BCF = 2.51)

Mobility in soil

Ingredient	Mobility
monoethanolamine	HIGH (KOC = 1)
ethylene glycol monobutyl ether	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / packaging disposal	Dispose of contents/container in accordance with local regulations.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	2R

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS WHEN IN PACKS OF 5L OR LESS

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

MONOETHANOLAMINE IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5)
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
Australian Inventory of Industrial Chemicals (AIIC)

ETHYLENE GLYCOL MONOBUTYL ETHER IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
Australian Inventory of Industrial Chemicals (AIIC)
International Agency for Research on Cancer (IARC) – Agents classified by AIRC monographs.

POTASSIUM PYROPHOSPHATE IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australian Inventory of Industrial Chemicals (AIIC)

AMMONIUM LAURYL SULFATE IS FOUND ON THE FOLLOWING REGULATORY lists
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australian Inventory of Industrial Chemicals (AIIC)

AMMONIUM HYDROXIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
Australian Inventory of Industrial Chemicals (AIIC)

SECTION 16 OTHER INFORMATION

Revision Schedule

Revision Date	22/06/2022
Initial Date	08/12/2016

SDS Version Summary

Version	Issue Date	Sections Updated
2.1	13/04/2021	Sections 2, 3, 11, 12, 15, 16 have been updated or corrected
2.2	22/02/2022	Section 3
2.3	22/06/2022	Sections 3, 11, 12, 15.

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources such as the ECHA C&L Chemical Inventory, HSNO (CCID) New Zealand, AICIS and HCIS Australia

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Definitions and abbreviations

PC-TWA;	Permissible Concentration-Time Weighted Average
PC-STEL:	Permissible Concentration-Short Term Exposure Limit
IARC:	International Agency for Research on Cancer
ACGIH:	American Conference of Government Industrial Hygienists
STEL:	Short Term Exposure Limit
TEEL:	Temporary Emergency Exposure Limit
IDLH:	Immediate Danger to Life or Health Concentrations
OSF:	Odour Safety Factor
NOAEL:	No Observed Effects Level
TLV:	Threshold Limit Value
LOD:	Limit Of Detection
OTV:	Odour Threshold Value
BCF:	Bio Concentration Factors
BEI:	Biological Exposure Index

End of SDS