

**SAFETY DATA SHEET**

Revision Date: 09/13/2022

Print Date: 2/20/2023

SDS Number: R0718175

Version: 1.5

protectagen™ biofunctional  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
831066

29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION****1.1 Product identifier**

Trade name : protectagen™ biofunctional  
Description : N2022  
™ Trademark, Ashland or its subsidiaries, registered in  
various countries

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

Recommended use : Personal care

**Details of the supplier of the safety data sheet**

Ashland  
P.O. Box 2219  
Columbus, OH 43216  
United States of America (USA)  
1-614-790-3333 (USA)

EHSPProductSafety@ashland.com

**Emergency telephone number**

1-800-ASHLAND (1-800-274-5263)

**Regulatory information**

1-614-790-3333 (customer service)

**Product Information**

1-614-790-3333 (USA)

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS label elements**

Not a hazardous substance or mixture.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Hazardous components**

Chemical name	CAS-No.	Classification	Concentration (%)
GLYCERINE	56-81-5	This material is not considered hazardous	29.95



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under the OSHA  
 Hazard  
 Communication  
 Standard (HazCom  
 2012).

### SECTION 4. FIRST AID MEASURES

- General advice : Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
- In case of eye contact : Remove contact lenses.  
 Protect unharmed eye.  
 If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
 Do not give milk or alcoholic beverages.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.
- Notes to physician : Treat symptomatically.

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Hazardous combustion products : Carbon dioxide (CO<sub>2</sub>)  
 Carbon monoxide  
 Nitrogen oxides (NO<sub>x</sub>)  
 Aldehydes
- Specific extinguishing methods :  
 Standard procedure for chemical fires.
- Further information : Standard procedure for chemical fires.  
 Use extinguishing measures that are appropriate to local



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circumstances and the surrounding environment.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.

Environmental precautions : Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Use the whole package after opening. If contents are not to be used immediately, open under sterile conditions and store at 2 to 8°C to prevent potential contamination due to handling.

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

GLYCERINE	56-81-5	TWA	5 mg/m3 mist, respirable	OSHA Z-1
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			fraction	
		TWA	15 mg/m3 mist, total dust	OSHA Z-1
		PEL	10 mg/m3 Mist - total fraction	CAL PEL
		PEL	5 mg/m3 Mist - respirable fraction	CAL PEL
		TWA	10 mg/m3 Mist - total dust	OSHA P0
		TWA	5 mg/m3 Mist - respirable fraction	OSHA P0

**Engineering measures** : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Personal protective equipment**

**Respiratory protection** : In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination.  
 Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

**Hand protection**

**Material** : butyl-rubber  
**Break through time** : 480 min  
**Glove thickness** : > 0.5 mm

**Remarks** : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Eye protection** : Safety glasses

**Skin and body protection** : Work uniform or laboratory coat.

**Hygiene measures** : General industrial hygiene practice.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical state** : liquid



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Colour	: yellow
Odour	: characteristic
Odour Threshold	: No data available
pH	: 4 - 5
Melting point/freezing point	: not determined
Boiling point/boiling range	: not determined
Flash point	: 199 °C Value for Component
Evaporation rate	: not determined
Upper explosion limit	: not determined
Lower explosion limit	: not determined
Vapour pressure	: not determined
Relative vapour density	: not determined
Relative density	: No data available
Density	: 1.06 - 1.09 g/cm3
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: not determined
Viscosity, kinematic	: not determined
Oxidizing properties	: Not applicable
Molecular weight	: No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.
	No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Protect from frost, heat and sunlight.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	Carbon monoxide Carbon dioxide (CO <sub>2</sub> )

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure	: Inhalation Eye contact Skin contact Ingestion
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**Acute toxicity**

Not classified based on available information.

**Components:****GLYCERINE:**

Acute oral toxicity	: LD50 (Rat): 12,600 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): > 570 mg/m <sup>3</sup> Exposure time: 1 h Test atmosphere: vapour Assessment: Not classified as acutely toxic by inhalation under GHS.
Acute dermal toxicity	: LD50 (Rabbit): > 10 g/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:****GLYCERINE:**

Result: No skin irritation

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**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: Unlikely to cause eye irritation or injury.

**Components:**

GLYCERINE:

Result: Slight, transient irritation

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks: No data available

**Carcinogenicity:****IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Ecotoxicology Assessment

Short-term (acute) aquatic

: Not classified based on available information.

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hazard

Long-term (chronic) aquatic hazard : Not classified based on available information.

**Components:****GLYCERINE:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 54,000 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 1,995 mg/l  
Exposure time: 48 h

**Persistence and degradability****Product:**

Biodegradability : Result: Readily biodegradable.  
Remarks: Expert judgement

**Components:****GLYCERINE:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 94 %

No data available

**Bioaccumulative potential****Components:****GLYCERINE:**

Partition coefficient: n-octanol/water : log Pow: -1.76

No data available

**Mobility in soil****Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : No data available

**Components:**

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.



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**SECTION 14. TRANSPORT INFORMATION****International transport regulations****REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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**CFR\_RAIL\_C**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods

**MX\_DG**

Not dangerous goods

**TDG\_INWT\_C**

Not dangerous goods

**TDG\_RAIL\_C**

Not dangerous goods

**TDG\_ROAD\_C**

Not dangerous goods

**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods

**U.S. DOT - ROAD**

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Not dangerous goods

**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant

no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**SECTION 15. REGULATORY INFORMATION****TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : No SARA Hazards**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.**SARA 313** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**US State Regulations****Pennsylvania Right To Know**

WATER

7732-18-5

GLYCERINE

56-81-5

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**New Jersey Right To Know**

WATER

7732-18-5

GLYCERINE

56-81-5

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**The components of this product are reported in the following inventories:**

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: This product is regulated under the United States Food and Drug Act (FDA).
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: Personal care
ISHL	: Not in compliance with the inventory
KECI	: Personal care
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

**Inventories**

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

**Other regulations**

US. Drug Enforcement Administration (DEA) Listed Precursor and Essential Chemicals (21 CFR 1310) Not applicable

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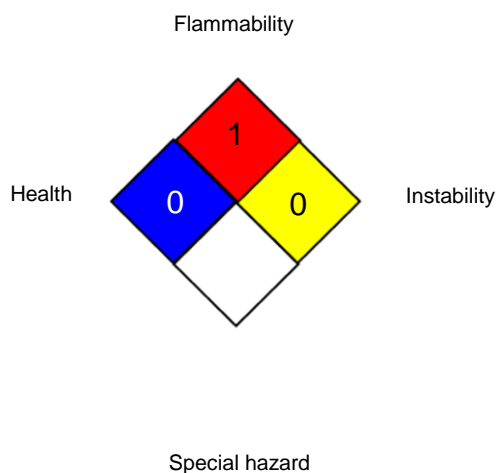
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### SECTION 16. OTHER INFORMATION

#### Further information

##### NFPA 704:



##### HMIS® IV:

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of H-Statements

#### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population



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(Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

This sds has been prepared by Ashland. (<http://www.ashland.com>)

Sources of key data used to compile the Safety Data Sheet : Ashland internal data including own and sponsored test reports  
 European Union Law with content from the Official Journal of the European Union.  
 European Chemicals Agency; the EU authority implementing the EU's chemicals legislation for companies.  
 The German Water Hazard Classes.  
 ReachCentrum; a series of support services to help comply with REACH regulations.  
 The European Commission; proposing legislation, administering and implementing EU policies, and enforcing EU law.  
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.  
 Cefic, the European Chemical Industry Council.  
 ESIS European Chemical Substances Information System

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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.

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