

SAFETY DATA SHEET

Revision date 2016-04-05

Revision number 3

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

1.1 Product identifier

Product name	Hyonic® OP-90
Product code	1525
Synonyms	Nonionic surfactant.

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

Recommended use [RU]	No information available
Uses advised against	None known

1.3 Details of the supplier of the safety data sheet

Supplier	GEO Specialty Chemicals, Inc. 701 Wissahickon Avenue Cedartown, GA 30125 +1-770-748-1200 Hours: Monday-Friday 9:00-5:00 EST (Eastern Standard Time)
Responsibility Statement	For further information, please contact safety-data-sheet-fp@geosc.com

1.4 Emergency telephone number

Emergency telephone	24 Hour Emergency Phone Number GEO Specialty Chemicals UK Ltd +44 (0)23 80891806
---------------------	--

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Acute oral toxicity	Category 4
Serious eye damage/eye irritation	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

2.2 Label elements

**Signal word****DANGER****Hazard statements**

H302 - Harmful if swallowed
 H318 - Causes serious eye damage
 H411 - Toxic to aquatic life with long lasting effects

Precautionary statements**Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid release to the environment

Response

Wear eye/face protection
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Collect spillage

Disposal

Dispose of contents/container to an approved waste disposal plant

2.3 Other hazards which do not result in classification

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Component	Common name	CAS-No	weight-%
Ethoxylated Octylphenol, Branched	Ethoxylated Octylphenol, Branched	9002-93-1	> 75%

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.

4. FIRST AID MEASURES

4.1 Description of first aid measures**Eye contact**

Remove contact lenses, if worn. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek medical advice immediately.

Skin contact

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Ingestion

Do NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably

mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects	Risk of serious damage to eyes.
Aggravated Medical Conditions	Eye ailments. Dermal ailments. Lung conditions.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
--------------------	------------------------

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water mist Carbon dioxide (CO2) Foam Dry chemical
Extinguishing media which must not be used for safety reasons	No information available.

5.2 Special hazards arising from the substance or mixture

Special Hazard	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazardous combustion products	Carbon oxides.

5.3 Advice for firefighters

Special protective equipment for firefighters	Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.
Firefighting measures	Cool exposed containers with water spray after extinguishing fire. Use self-contained breathing apparatus in confined areas.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear suitable protective clothing and gloves.
----------------------	---

6.2 Environmental precautions

Environmental precautions	Do not permit run-off to get into sewers or surface waterways.
---------------------------	--

6.3 Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Clean up large spills with vacuum truck. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Spills of solution are extremely slippery so all residue must be removed promptly. Provide adequate ventilation to spill area.

6.4 Reference to other sections

See Section 12 for additional Ecological Information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Warm to 122° F (50° C) and mix well before using.
 Avoid contact with eyes, skin and clothing
 Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.
 Wash thoroughly after handling
 Avoid breathing vapors, mist or gas.
 Use with adequate ventilation and employ respiratory protection where mist or vapors may be generated.
 Do not take internally
 Keep container closed when not in use
 FOR INDUSTRIAL USE ONLY.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep at temperatures between 15 and 49 °C (59 and 120 °F)
 Product may congeal or stratify if cold.

Materials to avoid

Strong acids and bases. Strong oxidizing agents. Strong reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit value

Component	Ministry of Labor (Republic of Korea, 3/2012)	ACGIH TLV
Ethoxylated Octylphenol, Branched 9002-93-1	NAV	NAV

Legend

NAV - Not available

8.2 Appropriate engineering controls

Environmental exposure controls No information available

8.3 Personal Protective Equipment

Eye/face Protection

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Hand Protection

Appropriate chemical resistant gloves should be worn.

Skin and body protection

Rubber or plastic gloves

Respiratory protection

None required under normal conditions of use. NIOSH/MSHA-approved respirator if necessary. Follow manufacturer's recommendations.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state

liquid

Color

light yellow

Odor	slight odor
Odor threshold	No information available
pH	6.5 - 7.5 - aqueous solution (2%)
Melting / freezing point	No information available
Boiling point / boiling range	> 200 °C / > 392 °F
Flash point	> 93 °C / 200 °F - CC (closed cup)
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	No information available
Upper flammability limit	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	1.00 - typical
Solubility(ies)	
Solubility (water)	Soluble
Solubility in other solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Molecular weight	No information available
Density	8.3 lb/gal - typical

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity	No information available.
------------	---------------------------

10.2 Chemical stability

Chemical stability	Stable under normal conditions.
--------------------	---------------------------------

10.3 Possibility of hazardous reactions

Hazardous polymerization	Hazardous polymerization does not occur.
--------------------------	--

10.4 Conditions to avoid

Conditions to avoid	Keep away from heat, sparks and open flame.
---------------------	---

10.5 Incompatible materials

Materials to avoid	Strong acids and bases. Strong oxidizing agents. Strong reducing agents.
--------------------	--

10.6 Hazardous decomposition products

Hazardous decomposition products	Carbon oxides.
----------------------------------	----------------

11. TOXICOLOGICAL INFORMATION

11.1 Information on likely routes of exposure

Acute health hazard

Inhalation	Inhalation of mist causes irritation of respiratory system.
Eye contact	Risk of serious damage to eyes. May cause severe eye irritation with tearing, redness, and stinging.
Skin contact	None to only slight irritation expected.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

11.2 Health hazards

Acute toxicity - Product Information

Oral LD50	> 300 - <= 2000 mg/kg
Dermal LD50	No information available
Inhalation LC50	No information available
Skin corrosion/irritation	Not irritating
Serious eye damage/eye irritation	Risk of serious damage to eyes
Sensitization	Dermal sensitization: non-sensitizing
Germ cell mutagenicity	No information available
Carcinogenicity	No information available
Reproductive toxicity	No information available
Specific target organ toxicity - Single exposure	No information available
Specific target organ toxicity - Repeated exposure	No information available
Aspiration hazard	No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity - Product Information

Fish	No information available
Crustacea	No information available
Algae/aquatic plants	No information available

12.2 Persistence and degradability

Persistence and degradability	No information available
-------------------------------	--------------------------

12.3 Bioaccumulative potential

Bioaccumulative potential	No information available
---------------------------	--------------------------

12.4 Mobility in soil

Mobility	No information available
----------	--------------------------

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available
-------------------------	--------------------------

12.6 Other adverse effects

Other information	No other ecological studies have been carried out on this product.
-------------------	--

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of wastes	Avoid landfilling liquids. Do not put solutions containing this product into sewer systems. Dispose of via incineration (or other approved methods) in accordance with national and local regulations.
Contaminated packaging	Since empty containers retain product residue, follow label warnings even after container is emptied

14. TRANSPORT INFORMATION

US DOT

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OCTYL PHENOL ETHOXYLATED)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Yes

ERG Number 171

Land transport (ADR/RID)

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OCTYL PHENOL ETHOXYLATED)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Yes

Inland waterway transport (ADN)

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OCTYL PHENOL ETHOXYLATED)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Yes

Air transport (ICAO-TI / IATA-DGR)

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OCTYL PHENOL ETHOXYLATED)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Yes

ERG Code 9L

Sea transport (IMDG)

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (OCTYL PHENOL ETHOXYLATED)

14.3. Transport hazard class(es) 9

14.4. Packing group III

14.5. Environmental hazards Yes

EmS F-A; S-F

14.6 Special precautions for user

No information available

Harmonized Tariff Number

3402.13

15. REGULATORY INFORMATION**15.1 Industrial Safety and Health Law**

ISHA Article 37

None of the components are listed.

ISHA Article 38

None of the components are listed.

Component	ISHA - Substances to be controlled - Acids and bases	ISHA - Substances to be controlled - Metals	ISHA - Substances to be controlled - Organic Substances
Ethoxylated Octylphenol, Branched	Not applicable	Not applicable	Not applicable

Component	ISHA - Harmful factors subject to special health check-up - Acids and bases	ISHA - Harmful factors subject to special health check-up - Metals	ISHA - Harmful factors subject to special health check-up - Organic Substances
Ethoxylated Octylphenol, Branched	Not applicable	Not applicable	Not applicable

Component	ISHA - Harmful agents subject to Work Environment Measuring - Acids and bases	ISHA - Harmful agents subject to Work Environment Measuring - Metals	ISHA - Harmful agents subject to Work Environment Measuring - Organic Substances
Ethoxylated Octylphenol, Branched	Not applicable	Not applicable	Not applicable

Occupational exposure limits

See section 8 for more information

15.2 Toxic Chemicals Control Law

Component	TCCA - Toxic Chemicals	TCCA - Observational Chemicals	TCCA Article 32 (Banned)	TCCA Article 32 (Restricted)	Accident Precaution Chemicals
Ethoxylated Octylphenol, Branched	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

15.3 Dangerous Substances Safety Management Act

Not classified

15.4 Wastes Management

Dispose of contents/container in accordance with all local, regional, national, and international regulations.

15.5 Other information

International Inventories

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

EINECS (European Inventory of Existing Chemical Substances)

All ingredients are on the inventory or exempt from listing

ELINCS (European List of Notified Chemical Substances)

None of the ingredients are on the inventory.

ENCS (Japan)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

TSCA (United States)

All ingredients are on the inventory or exempt from listing

Legend

AICS - Australian Inventory of Chemical Substances

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

IECSC - China Inventory of Existing Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

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

16. OTHER INFORMATION

Product code

1525

Revision date

2016-04-05

[Key or legend to abbreviations and acronyms used in the safety data sheet](#)

NAV - Not available

[Additional information](#)

None

[Disclaimer](#)

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