



## SAFETY DATA SHEET

IO-SHIELD

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : IO-SHIELD

Other means of identification : not applicable

Recommended use : Teat dip

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : Product is sold ready to use.

Company : Ecolab Inc.  
370 N. Wabasha Street  
St. Paul, Minnesota USA 55102  
1-800-352-5326

Emergency telephone : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 08/05/2014

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Eye irritation : Category 2B

#### GHS Label element

Signal Word : Warning

Hazard Statements : Causes eye irritation.

Precautionary Statements : **Prevention:**  
Wash skin thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.  
**Response:**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

Other hazards : None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Nonylphenol, ethoxylated iodine complex	11096-42-7	1 - 5
glycerin	56-81-5	1 - 5
dodecylbenzene sulfonic acid	27176-87-0	0.1 - 1

### SECTION 4. FIRST AID MEASURES

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Rinse with plenty of water.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

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- If inhaled : Get medical attention if symptoms occur.
- Protection of first-aiders : No special precautions are necessary for first aid responders.
- Notes to physician : Treat symptomatically.

**See toxicological information (Section 11)**

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials:  
Carbon oxides  
nitrogen oxides (NOx)  
Sulfur oxides  
Oxides of phosphorus
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
- Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.
- Storage temperature : 5 °C to 45 °C

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
glycerin	56-81-5	TWA	10 mg/m <sup>3</sup>	ACGIH
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z1

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### Personal protective equipment

Eye protection : No special protective equipment required.

Hand protection : No special protective equipment required.

Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid  
Color : clear, dark brown  
Odor : iodine  
pH : 4.0 - 4.4, 100 %  
Flash point : not applicable  
Odor Threshold : no data available  
Melting point/freezing point : no data available  
Initial boiling point and boiling range : > 100 °C  
Evaporation rate : no data available  
Flammability (solid, gas) : no data available  
Upper explosion limit : no data available  
Lower explosion limit : no data available  
Vapor pressure : no data available  
Relative vapor density : no data available  
Relative density : 1.031 - 1.041  
Water solubility : soluble  
Solubility in other solvents : no data available  
Partition coefficient: n-octanol/water : no data available

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Autoignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, kinematic	: 676.892 mm <sup>2</sup> /s (40 °C)
Explosive properties	: no data available
Oxidizing properties	: no data available
Molecular weight	: no data available
VOC	: no data available

### SECTION 10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Bases
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulfur oxides Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

#### Potential Health Effects

Eyes	: Causes eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact	: Redness, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

#### Toxicity

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Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: Mild eye irritation
Respiratory or skin sensitization	: no data available
Carcinogenicity	: no data available
Reproductive effects	: no data available
Germ cell mutagenicity	: no data available
Teratogenicity	: no data available
STOT-single exposure	: no data available
STOT-repeated exposure	: no data available
Aspiration toxicity	: no data available

#### Ingredients

Acute dermal toxicity	: Nonylphenol, ethoxylated iodine complex LD50 rabbit: > 2,000 mg/kg
	glycerin LD50 rabbit: 23,000 mg/kg
	dodecylbenzene sulfonic acid LD50 rabbit: 800 mg/kg

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Environmental Effects	: Harmful to aquatic life.
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#### Product

Toxicity to fish	: no data available
Toxicity to daphnia and other aquatic invertebrates	: no data available
Toxicity to algae	: no data available

#### Ingredients

Toxicity to fish	: glycerin 96 h LC50 Fish: 855 mg/l
	dodecylbenzene sulfonic acid 96 h LC50 Fish: 4.3 mg/l

#### Persistence and degradability

no data available

#### Bioaccumulative potential

no data available

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### Mobility in soil

no data available

### Other adverse effects

no data available

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Not dangerous goods

### Sea transport (IMDG/IMO)

Not dangerous goods

## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know

#### 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** : Acute Health Hazard

**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : 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.

### California Prop 65

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

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

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**1907/2006 (EU) :**  
not determined

**Switzerland. New notified substances and declared preparations :**  
The mixture contains substances listed on the Swiss Inventory not determined

**United States TSCA Inventory :**  
On TSCA Inventory

**Canadian Domestic Substances List (DSL) :**  
All components of this product are on the Canadian DSL.

**Australia Inventory of Chemical Substances (AICS) :**  
not determined

**New Zealand. Inventory of Chemical Substances :**  
not determined

**Japan. ENCS - Existing and New Chemical Substances Inventory :**  
not determined

**Japan. ISHL - Inventory of Chemical Substances (METI) :**  
not determined

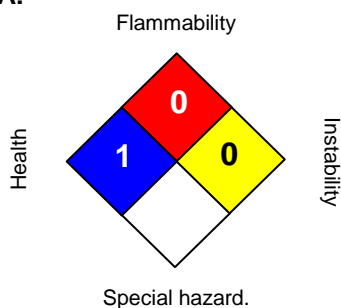
**Korea. Korean Existing Chemicals Inventory (KECI) :**  
not determined

**Philippines Inventory of Chemicals and Chemical Substances (PICCS) :**  
not determined

**China. Inventory of Existing Chemical Substances in China (IECSC) :**  
not determined

## SECTION 16. OTHER INFORMATION

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

Issuing date : 08/05/2014  
Version : 1.0  
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

## **SAFETY DATA SHEET**

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The information provided in this Material 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.