




## Section 2. Hazards identification

### 2.2 GHS label elements

<b>Hazard pictograms</b>	: <input checked="" type="checkbox"/> Yellow	
<b>Signal word</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	No signal word. No signal word. Warning
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	No known significant effects or critical hazards. No known significant effects or critical hazards. H315 - Causes skin irritation. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.
<b><u>Precautionary statements</u></b>		
<b>Prevention</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	Not applicable. Not applicable. P280 - Wear protective gloves. Wear eye or face protection. P261 - Avoid breathing vapor. P264 - Wash thoroughly after handling.
<b>Response</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	Not applicable. Not applicable. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
<b>Storage</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	Not applicable. Not applicable. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
<b>Disposal</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	Not applicable. Not applicable. P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	None known. None known. None known.
<b><u>2.3 Other hazards</u></b>		
<b>Hazards not otherwise classified</b>	: <input checked="" type="checkbox"/> Blue <input type="checkbox"/> Black <input type="checkbox"/> Yellow	None known. None known. None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Blue  
Black  
Yellow

Substance  
Substance  
Mixture

Ingredient name	%	CAS number
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	100	25322-68-3
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	100	25322-68-3
<b>Yellow</b> 3,6,9,12-tetraoxatetradecane-1,14-diol	$\geq 25$ - $\leq 50$	4792-15-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: Blue	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Black	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	Yellow	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
<b>Inhalation</b>	: Blue	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Black	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Yellow	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get

## Section 4. First aid measures

### Skin contact

: Blue

Black

Yellow

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

: Blue

Black

Yellow

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

##### Eye contact

: Blue

Black

Yellow

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
Causes serious eye irritation.

##### Inhalation

: Blue

Black

Yellow

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
May cause respiratory irritation.

##### Skin contact

: Blue

Black

Yellow

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
Causes skin irritation.

##### Ingestion

: Blue

Black

Yellow

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	: Blue Black Yellow	No specific data. No specific data. Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: Blue Black Yellow	No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Skin contact</b>	: Blue Black Yellow	No specific data. No specific data. Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: Blue Black Yellow	No specific data. No specific data. No specific data.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Blue  Black  Yellow	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: Blue Black Yellow	No specific treatment. No specific treatment. No specific treatment.
<b>Protection of first-aiders</b>	: Blue  Black  Yellow	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Blue  Black  Yellow	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
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## Section 5. Fire-fighting measures

<b>Unsuitable extinguishing media</b>	: Blue	None known.
	Black	None known.
	Yellow	None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: Blue	In a fire or if heated, a pressure increase will occur and the container may burst.
	Black	In a fire or if heated, a pressure increase will occur and the container may burst.
	Yellow	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous thermal decomposition products</b>	: Blue	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Black	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Yellow	Decomposition products may include the following materials: carbon dioxide carbon monoxide

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: Blue	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Black	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	Yellow	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	: Blue	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Black	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Yellow	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

: Blue

Black

Yellow

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

#### For emergency responders

: Blue

Black

Yellow

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Blue

Black

Yellow

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### 6.3 Methods and materials for containment and cleaning up

## Section 6. Accidental release measures

<b>Methods for cleaning up</b>	: Blue	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Black	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	Yellow	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: Blue	Put on appropriate personal protective equipment (see Section 8).
	Black	Put on appropriate personal protective equipment (see Section 8).
	Yellow	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	: Blue	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Black	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Yellow	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.



## Section 7. Handling and storage

### 7.2 Conditions for safe storage, including any incompatibilities

: Blue

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Black

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Yellow

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

#### Recommendations

: Blue  
Black  
Yellow

Industrial applications, Professional applications.  
Industrial applications, Professional applications.  
Industrial applications, Professional applications.

#### Industrial sector specific solutions

: Blue  
Black  
Yellow

Not available.  
Not available.  
Not available.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	<b>OARS WEEL (United States, 4/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	<b>OARS WEEL (United States, 4/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Yellow</b>	

## Section 8. Exposure controls/personal protection

3,6,9,12-tetraoxatetradecane-1,14-diol

None.

### Biological exposure indices

No exposure indices known.

### 8.2 Exposure controls

#### Appropriate engineering controls

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

#### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

#### Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

#### Physical state

: Blue Solid.  
Black Solid.  
Yellow Solid.

#### Color

: Blue White.  
Black White.  
Yellow Not available.

#### Odor

: Blue Odorless.  
Black Odorless.  
Yellow Not available.

## Section 9. Physical and chemical properties and safety characteristics

<b>Odor threshold</b>	: <input checked="" type="checkbox"/> Blue	Not available.
	Black	Not available.
	Yellow	Not available.
<b>pH</b>	: <input checked="" type="checkbox"/> Blue	5 to 7
	Black	5.7
	Yellow	Not available.
<b>Melting point/freezing point</b>	: <input checked="" type="checkbox"/> Blue	Not available.
	Black	Not available.
	Yellow	Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	: <input checked="" type="checkbox"/> Blue	250°C (482°F)
	Black	250°C (482°F)
	Yellow	Not available.
<b>Flash point</b>	: <input checked="" type="checkbox"/> Blue	Closed cup: 171 to 235°C (339.8 to 455°F) Open cup: 199 to 238°C (390.2 to 460.4°F)
	Black	Closed cup: 171 to 235°C (339.8 to 455°F) Open cup: 199 to 238°C (390.2 to 460.4°F)
	Yellow	Not available.

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
<input checked="" type="checkbox"/> Yellow						
Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy-Ethane-1,2-diol, ethoxylated	171 to 235	339.8 to 455	-	199 to 238	390.2 to 460.4	-

<b>Evaporation rate</b>	: <input checked="" type="checkbox"/> Blue	Not available.
	Black	Not available.
	Yellow	Not available.
<b>Flammability</b>	: <input checked="" type="checkbox"/> Blue	Not applicable.
	Black	Not applicable.
	Yellow	Not applicable.
<b>Lower and upper explosion limit/flammability limit</b>	: <input checked="" type="checkbox"/> Blue	Not available.
	Black	Not available.
	Yellow	Not available.
<b>Vapor pressure</b>	: <input checked="" type="checkbox"/> Blue	0.00000004 kPa (0.0000003 mm Hg)
	Black	0.00000004 kPa (0.0000003 mm Hg)

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
<input checked="" type="checkbox"/> Yellow						
Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy-Ethane-1,2-diol, ethoxylated	0.0000003	0.00000004	-	-	-	-
3,6,9,12-tetraoxatetradecane-1,14-diol	0.000000232	0.000000031	-	-	-	-

<b>Relative vapor density</b>	: <input checked="" type="checkbox"/> Blue	Not available.
	Black	Not available.
	Yellow	Not available.

## Section 9. Physical and chemical properties and safety characteristics

**Relative density** :  Blue 1.13  
 Black 1.13  
 Yellow Not available.

<b>Solubility(ies)</b>	<b>Media</b>	<b>Result</b>
	<input checked="" type="checkbox"/> Blue water	Soluble
	<input type="checkbox"/> Black water	Soluble
	<input type="checkbox"/> Yellow water	Soluble

**Partition coefficient: n-octanol/water** :  Blue Not available.  
 Black Not available.  
 Yellow Not applicable.

**Auto-ignition temperature** :  Blue 360°C (680°F)  
 Black 360°C (680°F)

<b>Ingredient name</b>	<b>°C</b>	<b>°F</b>	<b>Method</b>
<input checked="" type="checkbox"/> Yellow Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	360	680	-

**Decomposition temperature** :  Blue Not available.  
 Black Not available.  
 Yellow Not available.

**Viscosity** :  Blue Not available.  
 Black Not available.  
 Yellow Not available.

### Particle characteristics

**Median particle size** :  Blue Not applicable.  
 Black Not applicable.  
 Yellow Not applicable.

## Section 10. Stability and reactivity

**10.1 Reactivity** :  Blue No specific test data related to reactivity available for this product or its ingredients.  
 Black No specific test data related to reactivity available for this product or its ingredients.  
 Yellow No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** :  Blue The product is stable.  
 Black The product is stable.  
 Yellow The product is stable.

**10.3 Possibility of hazardous reactions** :  Blue Under normal conditions of storage and use, hazardous reactions will not occur.  
 Black Under normal conditions of storage and use, hazardous reactions will not occur.  
 Yellow Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** :  Blue No specific data.  
 Black No specific data.  
 Yellow No specific data.

## Section 10. Stability and reactivity

<b>10.5 Incompatible materials</b>	: Blue	May react or be incompatible with oxidizing materials.
	Black	May react or be incompatible with oxidizing materials.
	Yellow	May react or be incompatible with oxidizing materials.

<b>10.6 Hazardous decomposition products</b>	: Blue	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Black	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Yellow	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

## Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
<b>Yellow</b> 3,6,9,12-tetraoxatetradecane-1,14-diol	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** :  Blue Not available.  
 Black Not available.  
 Yellow Not available.

### Potential acute health effects

**Eye contact** :  Blue No known significant effects or critical hazards.  
 Black No known significant effects or critical hazards.  
 Yellow Causes serious eye irritation.

**Inhalation** :  Blue No known significant effects or critical hazards.  
 Black No known significant effects or critical hazards.  
 Yellow May cause respiratory irritation.

**Skin contact** :  Blue No known significant effects or critical hazards.  
 Black No known significant effects or critical hazards.  
 Yellow Causes skin irritation.

**Ingestion** :  Blue No known significant effects or critical hazards.  
 Black No known significant effects or critical hazards.  
 Yellow No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** :  Blue No specific data.  
 Black No specific data.  
 Yellow Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

**Inhalation** :  Blue No specific data.  
 Black No specific data.  
 Yellow Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing

**Skin contact** :  Blue No specific data.  
 Black No specific data.  
 Yellow Adverse symptoms may include the following:  
 irritation  
 redness

**Ingestion** :  Blue No specific data.  
 Black No specific data.  
 Yellow No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

## Section 11. Toxicological information

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: Blue Black Yellow	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Blue Black Yellow	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Blue Black Yellow	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: Blue Black Yellow	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	28000	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >1000000 $\mu$ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	Acute EC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 >1000000 $\mu$ g/l Fresh water	Fish - <i>Salmo salar</i> - Parr	96 hours

### 12.2 Persistence and degradability

## Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	OECD 301D Ready Biodegradability - Closed Bottle Test	74.85 % - Readily - 28 days	4 mg/l	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	-	-	Readily
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Blue</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	Low
<b>Black</b> Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated	-	3.2	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal



## Section 13. Disposal considerations

of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

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

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

#### **Classification**

: Blue  
Black  
Yellow

Not applicable.  
Not applicable.  
SKIN IRRITATION - Category 2  
EYE IRRITATION - Category 2A  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(Respiratory tract irritation) - Category 3

#### Composition/information on ingredients

## Section 15. Regulatory information

Name	%	Classification
<b>Yellow</b> 3,6,9,12-tetraoxatetradecane-1,14-diol	≥25 - ≤50	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : All components are listed or exempted.

**Canada** : All components are listed or exempted.

**China** : All components are listed or exempted.

**Japan** : **Japan inventory (CSCL)**: All components are listed or exempted.  
**Japan inventory (ISHL)**: All components are listed or exempted.

**New Zealand** : All components are listed or exempted.

**Philippines** : All components are listed or exempted.

**Republic of Korea** : All components are listed or exempted.

**Taiwan** : All components are listed or exempted.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States** : All components are active or exempted.

**Viet Nam** : All components are listed or exempted.

## Section 16. Other information

### [Procedure used to derive the classification](#)

Classification	Justification
<b>Yellow</b> SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method Calculation method Calculation method

### [History](#)

**Date of issue/Date of revision** : 04/25/2024

**Date of previous issue** : 07/04/2023

**Version** : 2

**Key to abbreviations** :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

📌 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

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