

Oil Red O

TREVIGEN[®] Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 04/28/2015 Date of issue: 04/28/2015

Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Oil Red O

Product Code: 5010-024-05

1.2. Intended Use of the Product

No use is specified

1.3. Name, Address, and Telephone of the Responsible Party

Company

Trevigen Inc.

8405 Helgerman Court

20877 Gaithersburg, MD 20877

T 1-800-TREVIGEN

1.4. Emergency Telephone Number

Emergency Number : 301-216-2800

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 2 H225

Eye Irrit. 2A H319

STOT SE 3 H336

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.

Precautionary Statements (GHS-US)

: P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, and eye protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

P312 - Call a poison center or doctor if you feel unwell.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, provincial, territorial, and international regulations.

2.3. Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Isopropyl alcohol	(CAS No) 67-63-0	99.5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Flush with plenty of water for at least 5 minutes. Seek medical advice if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do not induce vomiting. Rinse mouth. Seek medical attention if a large amount is swallowed.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause drowsiness and dizziness. Causes eye irritation.

Inhalation: May cause drowsiness or dizziness. May cause respiratory irritation.

Skin Contact: May cause skin irritation.

Eye Contact: Causes eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Highly flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion. Reacts violently with incompatible materials to form other toxic and explosive materials.

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Under fire conditions, hazardous fumes will be present. Under fire conditions closed containers may rupture or explode.

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Closed containers exposed to heat may explode. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow run-off from firefighting to enter drains or water sources.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Hydrocarbons.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe vapors, mist, or spray. Avoid all contact with skin, eyes, or clothing. Use special care to avoid static electric charges. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Avoid contact with skin, eyes, and clothing. Use only non-sparking tools. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Handle empty containers with care because residual vapors are flammable.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Ensure adequate ventilation. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, and lighting equipment. Comply with applicable regulations.

Storage Conditions: Store in a dry, cool, and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible Materials: Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Acids. Isocyanates. Attacks some plastic, rubber.

7.3. Specific End Use(s)

No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Isopropyl alcohol (67-63-0)

Mexico

OEL TWA (mg/m³)

980 mg/m³

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Mexico	OEL TWA (ppm)	400 ppm
Mexico	OEL STEL (mg/m ³)	1225 mg/m ³
Mexico	OEL STEL (ppm)	500 ppm
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	400 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
USA NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
Alberta	OEL STEL (mg/m ³)	984 mg/m ³
Alberta	OEL STEL (ppm)	400 ppm
Alberta	OEL TWA (mg/m ³)	492 mg/m ³
Alberta	OEL TWA (ppm)	200 ppm
British Columbia	OEL STEL (ppm)	400 ppm
British Columbia	OEL TWA (ppm)	200 ppm
Manitoba	OEL STEL (ppm)	400 ppm
Manitoba	OEL TWA (ppm)	200 ppm
New Brunswick	OEL STEL (mg/m ³)	1230 mg/m ³
New Brunswick	OEL STEL (ppm)	500 ppm
New Brunswick	OEL TWA (mg/m ³)	983 mg/m ³
New Brunswick	OEL TWA (ppm)	400 ppm
Newfoundland & Labrador	OEL STEL (ppm)	400 ppm
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm
Nova Scotia	OEL STEL (ppm)	400 ppm
Nova Scotia	OEL TWA (ppm)	200 ppm
Nunavut	OEL STEL (mg/m ³)	1228 mg/m ³
Nunavut	OEL STEL (ppm)	500 ppm
Nunavut	OEL TWA (mg/m ³)	983 mg/m ³
Nunavut	OEL TWA (ppm)	400 ppm
Northwest Territories	OEL STEL (mg/m ³)	1228 mg/m ³
Northwest Territories	OEL STEL (ppm)	500 ppm
Northwest Territories	OEL TWA (mg/m ³)	983 mg/m ³
Northwest Territories	OEL TWA (ppm)	400 ppm
Ontario	OEL STEL (ppm)	400 ppm
Ontario	OEL TWA (ppm)	200 ppm
Prince Edward Island	OEL STEL (ppm)	400 ppm
Prince Edward Island	OEL TWA (ppm)	200 ppm
Québec	VECD (mg/m ³)	1230 mg/m ³
Québec	VECD (ppm)	500 ppm
Québec	VEMP (mg/m ³)	985 mg/m ³
Québec	VEMP (ppm)	400 ppm
Saskatchewan	OEL STEL (ppm)	400 ppm
Saskatchewan	OEL TWA (ppm)	200 ppm
Yukon	OEL STEL (mg/m ³)	1225 mg/m ³
Yukon	OEL STEL (ppm)	500 ppm
Yukon	OEL TWA (mg/m ³)	980 mg/m ³
Yukon	OEL TWA (ppm)	400 ppm

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Proper grounding procedures to avoid static electricity should be followed. Gas detectors should be used when flammable gases or vapors may be released. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Protective clothing. Gloves. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Impermeable protective gloves.

Eye Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Not available
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Reacts violently with strong oxidizers. Increased risk of fire or explosion. Reacts violently with incompatible materials to form other toxic and explosive materials.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.
- 10.5. Incompatible Materials:** Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Acids. Isocyanates. Attacks some plastic, rubber.
- 10.6. Hazardous Decomposition Products:** Thermal decomposition generates: Carbon oxides (CO, CO₂). Hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause drowsiness or dizziness

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause drowsiness or dizziness. May cause respiratory irritation

Symptoms/Injuries After Skin Contact: May cause skin irritation

Symptoms/Injuries After Eye Contact: Causes eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects

Chronic Symptoms: None expected under normal conditions of use

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Isopropyl alcohol (67-63-0)	
LD50 Oral Rat	4710 mg/kg
LD50 Dermal Rabbit	4059 mg/kg
LC50 Inhalation Rat	72.6 mg/l/4h (Exposure time: 4 h)
Isopropyl alcohol (67-63-0)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity Not classified.

Isopropyl alcohol (67-63-0)	
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)
LC 50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic Organisms 2	1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

12.2. Persistence and Degradability Not available

12.3. Bioaccumulative Potential

Isopropyl alcohol (67-63-0)	
Log Pow	0.05 (at 25 °C)

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

12.4. Mobility in Soil Not available

12.5. Other Adverse Effects Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Sewage Disposal Recommendations: Do not empty into drains; dispose of this material and its container in a safe way.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT

Proper Shipping Name : ISOPROPANOL SOLUTION

Hazard Class : 3

Identification Number : UN1219

Label Codes : 3

Packing Group : II



14.2. In Accordance with IMDG

Proper Shipping Name : ISOPROPANOL (ISOPROPYL ALCOHOL) SOLUTION

Hazard Class : 3

Identification Number : UN1219

Packing Group : II

Label Codes : 3

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-D



14.3. In Accordance with IATA

Proper Shipping Name : ISOPROPANOL SOLUTION

Packing Group : II

Identification Number : UN1219

Hazard Class : 3

Label Codes : 3

ERG Code (IATA) : 3L



14.4. In Accordance with TDG

Proper Shipping Name : ISOPROPANOL SOLUTION

Packing Group : II

Hazard Class : 3

Identification Number : UN1219

Label Codes : 3



SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Oil Red O	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 % (only if manufactured by the strong acid process, no supplier notification)

Oil Red O

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

15.2. US State Regulations

Isopropyl alcohol (67-63-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

Oil Red O

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Isopropyl alcohol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 04/28/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

Party Responsible for the Preparation of This Document

Trevigen INC. 8405 Helgerman Court Gaithersburg, MD 20877 T: 301-216-2800

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2