

**1. Identification**

**Product identifier** SuffOil-X  
**Other means of identification**  
**PMRA registration number** 33099  
**Recommended use** Agricultural/ Horticultural Use-  
Spray Oil Insecticide and Miticide- Refer to product label.  
**Recommended restrictions** Refer to product label.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**  
**Company name** BioWorks, Inc.  
**Address** 100 Rawson Rd., Ste. 205  
Victor, NY 14564  
United States  
**Telephone** Corporate Office 1 (585) 924-4362  
**Website** www.bioworksinc.com  
**E-mail** experts@bioworksinc.com  
**Contact person** Regulatory Department  
**Emergency phone number** CHEMTREC (24 hours):  
USA, Canada, Puerto Rico 1 (800) 424-9300  
Virgin Islands 1 (800) 424-9300  
International Maritime +1 (703) 527-3887

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, inhalation Category 4  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.  
**Label elements**



**Signal word** Warning  
**Hazard statement** Harmful if inhaled.  
**Precautionary statement**  
**Prevention** Avoid breathing vapors. Use only outdoors or in a well-ventilated area.  
**Response** If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

**3. Composition/information on ingredients****Mixtures**

Chemical name	Common name and synonyms	CAS number	%
Mineral Oil		64742-55-8	80 - < 90*
Poly(ethylene oxide)		25322-68-3	< 0.1*
Other components below reportable levels			10 - < 20

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

##### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.

##### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

##### Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

##### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

##### Most important

Direct contact with eyes may cause temporary irritation.

##### symptoms/effects, acute and delayed

##### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

##### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

##### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

##### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

##### Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

##### Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

##### and precautions for firefighters

##### Fire-fighting equipment/instructions

Move containers from fire area if you can do so without risk.

##### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

##### General fire hazards

No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

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

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch/damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and spray mists. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

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

This product is miscible in water.  
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage**

**Precautions for safe handling**

Avoid inhalation of vapors and spray mists. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store in original tightly closed container. Keep container tightly closed. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Mineral Oil (CAS 64742-55-8)	PEL	5 mg/m <sup>3</sup>	Mist.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Mineral Oil (CAS 64742-55-8)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Mineral Oil (CAS 64742-55-8)	STEL	10 mg/m <sup>3</sup>	Mist.
	TWA	5 mg/m <sup>3</sup>	Mist.

**US. AIHA Workplace Environmental Exposure Level (WEEL) Guides Components**

Components	Type	Value	From
Poly(ethylene oxide) (CAS 25322-68-3)	TWA	10 mg/m <sup>3</sup>	Particulate.

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear suitable protective clothing.

**Respiratory protection**

Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.



**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

<b>Appearance</b>	Viscous.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	White
<b>Odor</b>	Ammonia
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Salt-Out / Crystallization Temp</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	680 °F (360 °C)
<b>Flash point</b>	> 212.0 °F (> 100.0 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.00001 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.86 g/cm <sup>3</sup> (typical)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Dispersable
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Flammability class</b>	Combustible IIIB estimated
<b>Percent volatile</b>	15.27 % estimated
<b>pH in aqueous solution</b>	7 - 9 (1% dilution)
<b>Pounds per gallon</b>	7.17 lb/gal (typical)
<b>VOC (Weight %)</b>	0.01 % estimated

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	Harmful if inhaled.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**  
Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

<b>Acute toxicity</b>	Harmful if inhaled	
<b>Product</b>	<b>Species</b>	<b>Test Results</b>
SuffOil-X (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LC50	Rat	>2000 mg/kg
LD50	Rabbit	23.87.2046 mg/kg estimated
<i>Inhalation</i>		
LC50	Rat	>2.06 mg/l, 4 hours No mortality
<i>Oral</i>		
LD50	Rat	>5000 mg/kg
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Petroleum Oil, Paraffinic (CAS 64742-55-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	>2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	>5.53 mg/l, 4 hours
<i>Oral</i>		
LD50	Rat	>5000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species		Test Results
SuffOil-X (CAS Mixture)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	119.3602 mg/l, 48 hours estimated
Fish	LC50	Fish	119.3602 mg/l, 96 hours estimated
Components	Species		Test Results
Petroleum Oil, Paraffinic (CAS 64742-55-8)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	>100 mg/l, 48 hours
Fish	LC50	Fish	>100 mg/l, 96 hours
Poly(ethylene oxide) (CAS 25322-68-3)			
<b>Aquatic</b>			
Fish	LC50	Atlantic salmon ( <i>Salmo salar</i> )	>1000 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	Not available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

#### SARA 311/312 Hazardous chemical

No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

### FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number:  
48813-1-68539



**Hazard statement**

CAUTION

Harmful if absorbed through skin.

Avoid contact with eyes, skin, or clothing.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**US state regulations****US. Massachusetts RTK - Substance List**

Mineral Oil (CAS 64742-55-8)

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Mineral Oil (CAS 64742-55-8)

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).



## 16. Other information, including date of preparation or last revision

**Issue date** 05-10-2013

**Revision date** 05-07-2018

**Version #** 26

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of Manufacturer's knowledge, information and belief at the date of its publication; however, it is provided only as a guidance for safe handling, use, processing, storage, transportation, disposal and release of the Product. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made with respect to the Product or the information provided herein, or that the Product or information herein may be used without infringing the intellectual property rights of others. The information provided in this Safety Data Sheet relates only to the specific Product designated and may not be valid if the Product is used in combination with other materials or in any other process, unless specified herein. The user assumes all risk and liability for loss, injury, damage or expense due to any use, handling, storage or disposal of the Product, and Manufacturer recommends that the user conducts its own tests of the Product to determine suitability of the Product for user's particular use.

**Revision Information** Product and Company Identification: Product Registration Numbers  
Physical & Chemical Properties: Multiple Properties  
Toxicological Information: Toxicological Data