

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Trade name : Noxfish Fish Toxicant II  
 Synonyms : PMRA # 33247; RF2232 LIQUID FT

#### 1.2. Recommended use and restrictions on use

Recommended use : Piscicides.  
 Restrictions on use : Keep out of reach of children. Avoid inhalation of vapors or fumes. Use in well ventilated area. Avoid all contact with skin, eyes, or clothing.

#### 1.3. Supplier

Wellmark International, dba Central Life Sciences  
 1501 East Woodfield Road, Suite 200 West  
 Schaumburg, IL 60173  
 www.zoecon.com

#### 1.4. Emergency telephone number

Emergency number : 1-800-248-7763  
 1-800-424-9300 - CHEMTREC  
 1-703-527-3887 - CHEMTREC - Outside North America - Collect Calls Accepted

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Acute toxicity (oral) Category 3	Toxic if swallowed
Acute toxicity (inhalation) Category 2	Fatal if inhaled
Serious eye damage/eye irritation Category 2B	Causes eye irritation
Carcinogenicity Category 2	Suspected of causing cancer
Specific target organ toxicity (single exposure) Category 3	May cause drowsiness or dizziness
Specific target organ toxicity (single exposure) Category 3	May cause respiratory irritation
Aspiration hazard Category 1	May be fatal if swallowed and enters airways

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labeling

Hazard pictograms (GHS-US) :

  
 GHS06

  
 GHS07

  
 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :

- Toxic if swallowed
- May be fatal if swallowed and enters airways
- Causes eye irritation
- Fatal if inhaled
- May cause respiratory irritation
- May cause drowsiness or dizziness
- Suspected of causing cancer

Precautionary statements (GHS-US) :

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash hands, forearms and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Immediately call a poison center or doctor.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

# Noxfish Fish Toxicant II

## Safety Data Sheet

If exposed or concerned: Get medical advice/attention.  
Immediately call a poison center or doctor.  
Rinse mouth.  
Do NOT induce vomiting.  
If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.  
In case of inadequate ventilation wear respiratory protection.  
Store locked up.  
Dispose of contents/container to in accordance with local/regional/national/international regulations.

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : This product is extremely toxic to fish and other aquatic organisms. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Rotenone	(CAS-No.) 83-79-4	5
Cube Resins other than rotenone	(CAS-No.) N/A	5
Benzyl alcohol	(CAS-No.) 100-51-6	20
Propylene Glycol	(CAS-No.) 57-55-6	10
Solvent naphtha	(CAS-No.) 64742-94-5	52.79
Naphthalene	(CAS-No.) 91-20-3	0.53
Other ingredients	(CAS-No.) N/A	Balance

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a physician immediately. Call a doctor. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 and attention.

First-aid measures after ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Call a physician immediately. Do not induce vomiting. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : Fatal if inhaled. Causes dizziness or drowsiness if inhaled at non-lethal doses. Causes respiratory irritation if inhaled at non-lethal doses.

Symptoms/effects after eye contact : Mild eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed. Risk of lung edema.

Chronic symptoms : May cause cancer.

### 4.3. Immediate medical attention and special treatment, if necessary

Contains petroleum distillate vomiting may cause aspiration pneumonia. Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Avoid heavy hose streams.

### 5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

# Noxfish Fish Toxicant II

## Safety Data Sheet

### 5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Do not allow fire fighting water to escape into waterways or sewers. LARGE FIRES: Move containers from fire area if you can do it without risk. Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray. Keep unauthorized personnel away.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Do not breathe dust/fume/gas/mist/vapors/spray. Only qualified personnel equipped with suitable protective equipment may intervene.

#### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: Exposure controls/personal protection.
- Emergency procedures : As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Do NOT wash away into sewer. Avoid release to the environment. Evacuate unnecessary personnel. Stay upwind. Stop leak if safe to do so. Wear appropriate personal protective equipment, avoid direct contact.

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow runoff into water, storm drains or drainage ditches.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. Do not flush to sewer or allow to enter waterways. Wear appropriate personal protective equipment, avoid direct contact. Notify authorities if product enters sewers or public waters.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

- Storage conditions : Do not store near heat or open flame. Keep from freezing. Keep only in original container. Protect from sunlight. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.
- Incompatible materials : Strong acids. Strong oxidizers. Heat, sparks, open flame.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Rotenone (83-79-4)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (commercial)
ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
IDLH	US IDLH (mg/m <sup>3</sup> )	2500 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Benzyl alcohol (100-51-6)		
AIHA	WEEL TWA (ppm)	10 ppm
Propylene Glycol (57-55-6)		
AIHA	WEEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm

# Noxfish Fish Toxicant II

## Safety Data Sheet

Naphthalene (91-20-3)		
ACGIH	Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
IDLH	US IDLH (ppm)	250 ppm
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	75 mg/m <sup>3</sup>
NIOSH	NIOSH REL (STEL) (ppm)	15 ppm

### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear chemical resistant gloves made out of barrier laminate, nitrile rubber < or equal to 14 mils, neoprene rubber < or equal to 14 mils or Viton < or equal to 14 mils

#### Eye protection:

Wear chemical splash safety goggles. Safety glasses

#### Skin and body protection:

Coveralls, over long-sleeved shirt and long pants

#### Respiratory protection:

Mixers loaders, applicators and other handlers (except pilots): wear a NIOSH approved particulate respirator with any N, R or P filter with NIOSH approval prefix TC-84A or NIOSH approved powered air purifying respirator with HE filter with NIOSH approval prefix TC-21C. Wear respiratory protection. In case of insufficient ventilation, use NIOSH approved respiratory protection.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear amber liquid
- Color : Amber
- Odor : Strong, unpleasant, petroleum gas-like
- Odor threshold : No data available
- pH : 6.87 @ 23.4°C
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : No data available

# Noxfish Fish Toxicant II

## Safety Data Sheet

Flash point	: 112°C (233.6°F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.0336 g/ml @ 20°C
Solubility	: Insoluble
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: <20 cPs @ 25°C
Explosion limits	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Heat, sparks, open flame. Excess heat. Protect from sunlight. Do not freeze.

### 10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Noxfish Fish Toxicant II	
pH	6.87 @ 23.4°C
Rotenone (83-79-4)	
LD50 oral rat	39.5 mg/kg female, LD50 102 mg/kg male
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	0.0212 mg/l/4h
Benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LD50 dermal	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 4.2 mg/l/4h
Solvent naphtha (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 4.778 mg/l/4h
Naphthalene (91-20-3)	
LD50 oral rat	490 - 2600 mg/kg
LD50 dermal	> 2000 mg/kg
IARC group	2B - Possibly carcinogenic to humans

# Noxfish Fish Toxicant II

## Safety Data Sheet

Naphthalene (91-20-3)	
National Toxicity Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list?	Yes

GHS-US Properties	Classification
Acute toxicity	Oral: Toxic if swallowed. Inhalation: Fatal if inhaled.
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Causes eye irritation.
Respiratory or skin sensitization	Not classified
Germ cells mutagen	Not classified
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	Not classified
Specific target organ toxicant (single exposure)	May cause drowsiness or dizziness. May cause respiratory irritation.
Specific target organ toxicant (repeated exposure)	Not classified
Aspiration hazard	May be fatal if swallowed and enters airways.

## SECTION 12: Ecological information

### 12.1. Toxicity

Rotenone (83-79-4)	
LC50 Acute fish 1	0.00194 mg/l (Exposure time: 96h - Rainbow trout)
EC50 Daphnia 1	0.0037 mg/l (Exposure time: 96h - Daphnia magna)
NOEC Chronic fish 1	0.00101 mg/l (Rainbow trout)
NOEC Chronic crustacea 1	0.00125 mg/l (Daphnia magna)

Benzyl alcohol (100-51-6)	
LC50 Acute fish 1	460 mg/l (Exposure time: 96h - Fathead minnow)
LC50 Acute fish 2	> 100 mg/l (Exposure time: 96h - Japanese kilifish)
LC50 Acute crustacea 1	230 mg/l (Exposure time: 48h - Daphnia magna)

### 12.2. Persistence and degradability

Rotenone (83-79-4)	
Persistence and degradability	Rotenone is not persistent in the environment and its low vapor pressure ( $6.9 \times 10^{-10}$ torr) and Henry's Law constant ( $1.1 \times 10^{-13}$ atm-m <sup>3</sup> mol <sup>-1</sup> ) limit its volatility. If released to water, rotenone generally degrades quickly through abiotic (hydrolytic and photolytic) mechanisms.

### 12.3. Bioaccumulative potential

Rotenone (83-79-4)	
Log Pow	4.1
Bioaccumulative potential	Rotenone has a relatively low potential for bioconcentrating in aquatic organisms.

### 12.4. Mobility in soil

Rotenone (83-79-4)	
Mobility in soil	Rotenone is mobile to moderately mobile in soil and sediment with a half-life of a few days to several weeks or longer depending on water temperature

### 12.5. Other adverse effects

Noxfish Fish Toxicant II	
Ecological Fate	This product is extremely toxic to fish and other aquatic organisms.

# Noxfish Fish Toxicant II

## Safety Data Sheet

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### SECTION 14: Transport information

	UN number	Proper Shipping Name	Transport hazard class(es)	Packing group	Environmental hazards
<b>DOT</b>	UN2902	Pesticides, liquid, toxic, n.o.s. (Rotenone)	6.1	II	RQ: Naphthalene 100 lbs. Marine pollutant
<b>IMDG</b>	UN2902	Pesticides, liquid, toxic, n.o.s. (Rotenone)	6.1	II	Marine pollutant
<b>IATA</b>	UN2902	Pesticides, liquid, toxic, n.o.s. (Rotenone)	6.1	II	Acute aquatic toxicity

Other Information : The calculated 1-hour acute toxicity for inhalation LC50 = 1.588 mg/L

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Benzyl alcohol (100-51-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Propylene Glycol (57-55-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Solvent naphtha (64742-94-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

##### Naphthalene (91-20-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	100 lb
SARA Section 313 - Emission Reporting	0.1 %

##### PMRA Labelling

PMRA Registration Number : PMRA # 33247

PMRA INFORMATION: This chemical is a pesticide registered by the Pest Management Regulatory Agency and is subject to certain labeling requirements under the Pest Control Products Act.

PMRA Pictogram



PMRA Signal word

**Danger**

PMRA Precautionary Statement

KEEP OUT OF REACH OF CHILDREN.

PMRA Hazards to Humans and Domestic Animals

**TOXICOLOGICAL INFORMATION:**  
Contains petroleum distillate - vomiting may cause aspiration pneumonia. Treat symptomatically. KEEP OUT OF REACH OF CHILDREN. Fatal or poisonous if swallowed. May be harmful if absorbed through skin. Fatal if inhaled. Causes eye and skin irritation. DO NOT inhale sprays or vapours. Do not get in eyes, on skin or on clothing. In case of contact, wash immediately with soap and water. Wash all contaminated clothing with soap and hot water before reuse. Avoid contamination of feed and foodstuffs. Apply this product only as specified on this label. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not allow recreational access (e.g., wading, swimming, boating and fishing) to treated areas while rotenone is being applied. Do not allow swimming or wading in treated water for 72 hours after last application. Wear chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear, goggles or face shield, and either a respirator with a NIOSH-organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH-approved canister approved for pesticides during mixing, loading, application, clean-up and repair.

# Noxfish Fish Toxicant II

## Safety Data Sheet

PRMA First Aid	<p><b>FIRST AID:</b></p> <p><b>IF SWALLOWED:</b> Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.</p> <p><b>IF ON SKIN OR CLOTHING:</b> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.</p> <p><b>IF INHALED:</b> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.</p> <p><b>IF IN EYES:</b> Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.</p> <p>Take container, label or product name and PCP Registration Number with you when seeking medical attention.</p>
PMRA Environmental Hazards	Toxic to aquatic organisms.

### 15.2. US State regulations

No additional information available

### SECTION 16: Other information

Date of issue : 14 November 2018

SDS US (GHS HazCom 2012) - CGP

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