

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: eFOG[®]-180 **EPA Reg# 64864-60**
Product Code: 10309
Product Use: Anti-scald Agent for Postharvest Treatment of Pears by Thermal Fogging
Supplier: Pace International, LLC
Address: 5661 Branch Road, Wapato, WA 98951
Phone Number: 800-936-6750 (Monday-Friday, 7:00 a.m. – 4:00 p.m.)
Medical Emergency Phone Number: 888-271-4649 (PROSAR)
Transportation Emergency Phone Number: 800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification:
 Physical, Flammable liquid, Category 3
 Acute Oral, Category 4
 Acute Dermal, Category 4
 Acute Inhalation, Category 5
 Skin irritation, Category 2
 Eye irritation, Category 2A
 Respiratory Sensitization, Category 1
 Toxic to Reproduction, Category 1
 Specific Target Organ Toxicity – single exposure, Category 3
 Acute Aquatic toxicity, Category 2

Hazard Symbols:



Hazard Statements:

DANGER
 H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H333 May be harmful if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H360 May damage fertility or the unborn child.
 H336 May cause drowsiness or dizziness.
 H401 Toxic to aquatic life.

Precautionary Statements:

Prevention Statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/Bond container and receiving equipment.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P280 Wear protective clothing, chemical resistant gloves, and safety glasses. Fogging applicators must wear a NIOSH-approved full-face respirator with organic vapor filter.
 P264 Wash hands thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P261 Avoid breathing fumes/gas/mist/vapours/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P284 [In case of inadequate ventilation] wear respiratory protection. Fogging applicators must wear a NIOSH-approved full-face respirator with organic vapor filter.
 P273 Avoid release to the environment.

Response Statements:

P303/361/353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P370/378 In case of fire: Use dry chemical, CO₂ to extinguish.
 P301/312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P330 Rinse mouth.
 P302/352 IF ON SKIN: Wash with plenty of soap and water.
 P321 Specific treatment see Section 4 First Aid Measures.
 P332/313 If skin irritation occurs: Get medical advice/attention.
 P362/364 Take off contaminated clothing and wash it before reuse.
 P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337/313 If eye irritation persists: Get medical advice/attention.
 P304/340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P342/311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor for treatment advice.
 P308 IF exposed or concerned: Get medical advice/attention.

Storage Statements:

P403/235 Store in a well-ventilated place. Keep cool.
 P233 Keep container tightly closed.
 P405 Store locked up.

Disposal Statements:

P501 Dispose of contents/container should be made in accordance with applicable regional, national and local laws and regulations.



3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS #</u>	<u>Concentration (w/w %)</u>
Ethoxyquin (6-Ethoxy-1,2-dihydro-2,2,4-trimethyl quinoline)	91-53-2	18%
Ethanol	64-17-5	< 15%
Proprietary food grade ingredients		balance

4. FIRST AID MEASURES

General	Have the product container, label or Safety Data Sheet with you when calling a poison control center or physician, or going for treatment.
Advice:	
If on Skin:	Take off contaminated clothing. Wash skin with plenty of soap and water. If redness, burning, or irritation persists, get medical advice/attention. Wash contaminated clothing before reuse.
If in Eyes:	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. Get medical advice/attention.
If Swallowed:	Call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Dry chemical, CO ₂
Special Exposure Hazards:	Keep away from strong oxidizers.
Special Protective Equipment / Procedures for Firefighters:	Wear self-contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear protective clothing, chemical resistant gloves, and safety glasses. Fogging applicators must wear a NIOSH-approved full-face respirator with organic vapor filter.
Environmental Precautions:	In case of spill isolate area and deny entry to unnecessary personnel. Do not allow product to enter sewers, lakes, streams or other bodies of water.
Containment / Clean-Up Methods:	Stop spill at the source. Construct temporary dikes of dirt, sand, or other appropriate material to prevent spreading of the material. Absorb with an inert material such as sand or vermiculite and place in an appropriate container for disposal. Incinerate or dispose of in an approved disposal site.

7. HANDLING & STORAGE

Handling:	Avoid contact with skin and eyes. Good standards of hygiene should be maintained at all times. Smoking, eating, and drinking are prohibited in the work area. For personal protection wear protective clothing, chemical resistant gloves, and safety glasses. Fogging applicators must wear a NIOSH-approved full-face respirator with organic vapor filter.
Storage:	Store in a cool, dry area at room temperature. Do not use or store near heat/sparks/open flame/ or hot surfaces, keep away from direct sunlight. Keep container tightly closed when not in use. Keep out of reach of children and livestock. Avoid storing below 40°F (4°C). Store in locked location.

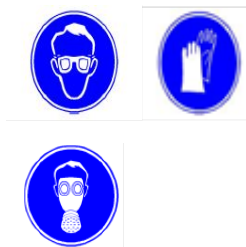


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: Ethoxyquin (6-Ethoxy-1,2-dihydro-2,2,4-trimethyl quinoline) CAS# 91-53-2
Not available.
Ethanol CAS# 64-17-5
TWA 1000 ppm / 1900 mg/m³ OSHA, STEL 1000 ppm ACGIH, IDHL 3300 ppm OSHA

Engineering Controls: Local exhaust ventilation maybe necessary to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Provide mechanical ventilation for confined spaces.

Personal Protective Equipment :



Clothing: Wear protective clothing and chemical resistant gloves when handling.

Eye Protection: Wear safety glasses. Eye fountain and washing facilities should be present at work area.

Respiratory Protection: Not normally required unless fogging. Fogging applicators must wear a NIOSH-approved full-face respirator with organic vapor filter.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Dark brown liquid	Upper/Lower flammability limits:	Not available
Odor:	Faint solvent	Vapor pressure:	Not available
Odor threshold:	Not available	Vapor density: (air =1)	Not available
pH:	7.0 – 9.0	Specific Gravity: (H₂O = 1)	.98
Melting/Freezing point:	Not available	Solubility:	Dispersible
Boiling point:	<212°F (100°C)	Partition coefficient (n-octanol-water):	Not available
Flash point:	91.5°F(33°C) Closed cup method	Auto-ignition temperature:	Not available
Evaporation rate:	Not available	Decomposition temperature:	Not available
Flammability (solid, gas):	Not applicable	Viscosity:	46.9 mm ² /s (cSt) @ 20°C

10. STABILITY & REACTIVITY

Reactivity hazards:	None known
Chemical stability:	Stable at ambient conditions
Conditions to avoid:	None known
Incompatible materials:	Strong oxidizers
Hazardous decomposition products:	Irritating or poisonous oxides of nitrogen and carbon upon combustion.



11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Acute Oral: LD ₅₀ (estimate): > 5000 mg/kg	Based on Ingredients
	Acute Dermal: LD ₅₀ (estimate): > 5000 mg/kg	Based on Ingredients
	Inhalation: LC ₅₀ (estimate): > 20 mg/L	Based on Ingredients
Skin corrosion/irritation:	Causes skin irritation. Harmful if absorbed through skin.	
Eye damage/irritation:	Causes serious eye irritation.	
Respiratory/Skin sensitization:	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May be harmful if inhaled in high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause narcotic effects in high concentrations. Vapours may cause dizziness or suffocation.	
Germ cell mutagenicity:	Not available	
Carcinogenicity:	No carcinogenic effects are expected due to product being comprised of FDA-approved food-grade ingredients.	
Reproductive toxicity:	Has been toxic to fetus lab animals at doses toxic to the mother.	
Target organ effects:	Prolonged exposure may cause liver, kidney, and heart damage.	
Aspiration hazard:	Material does not present an aspiration hazard.	
Potential health effects:	FLAMMABLE: Can cause serious eye irritation. Prolonged or repeated contact may cause dermatitis.	

12. ECOLOGICAL INFORMATION

Toxicity:	LC ₅₀ (96-hr) fish: > 7.5 mg/L (estimate)	Based on Ingredients
	Acute toxicity:	ethoxyquin
	Rainbow trout, LC ₅₀ (96h): 18 mg/L	
	Daphnia magna, EC ₅₀ (48h): 2 mg/L	
Persistence/ degradability:	Not available	
Bioaccumulative potential:	Not available	
Mobility in soil:	Not available	
Other adverse effects:	Toxic to aquatic life.	

13. DISPOSAL CONSIDERATIONS

Disposal methods:	Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
	Container Disposal: Do not reuse or refill container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

14. TRANSPORT INFORMATION

	<u>DOT</u>	<u>IMDG</u>	<u>IATA</u>
UN number:	UN1993	Not applicable	Not applicable
Proper shipping name:	Flammable liquid, n.o.s. (ethanol)	Not regulated	Not regulated
Hazard class(es):	3	Not applicable	Not applicable
Packing group:	III	Not applicable	Not applicable
Special precautions:	None		



15. REGULATORY INFORMATION

FIFRA:	This product is registered with the U.S. EPA under registration number 64864-60.
SARA 313:	Contains no chemicals subject to SARA Title III Section 313 in quantities sufficient to trigger reporting requirements.
TSCA:	All components of this product are included or exempt from inclusion in EPA's Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
WHMIS:	This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

16. OTHER INFORMATION

HMIS Ratings:	Health – 2	Flammability – 3	Reactivity – 0
NFPA Ratings:			

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom"). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

SDS preparation date:	August 20, 2015	Replaces SDS dated:	May 26, 2015
Changes since last revision:	Change to specific gravity.		

