

## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form:** Mixture

**Product Name:** Perasafe FC-100 (AFCO 4360)

**Product Code:** AFCO 4360

### Intended Use of the Product

**Use of the Substance/Mixture:** FDA approved antimicrobial agent for application on poultry carcasses, poultry carcass parts, poultry organs, whole, half, or quart red meat carcasses, red meat carcass parts, trim, and organs. For professional use only.

**Dilution at Use:** 0.05-1.68%

### Name, Address, and Telephone of the Responsible Party

#### **Company**

Alex C. Fergusson, LLC.  
800 Development Avenue  
Chambersburg, PA 17201  
T: 800-345-1329

[www.afcocare.com](http://www.afcocare.com)

### Emergency Telephone Number

**Emergency Number** : 1-800-424-9300 (CHEMTREC)

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### **Classification (GHS-US)**

##### As Sold – Before Dilution

Org. Perox. F	H242
Ox. Liq. 1	H271
Skin Corr. 1C	H314
Eye Dam. 1	H318
STOT SE 1	H370
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

##### At 1.68% Dilution

Skin Irrit. 3	H316
Eye Irrit. 2A	H319

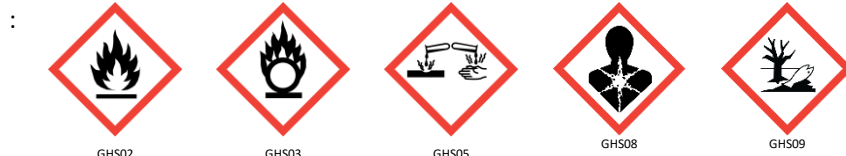
Full text of hazard classes and H-statements: see section 16.

### Label Elements

#### **GHS-US Labeling**

##### As Sold – Before Dilution

#### **Hazard Pictograms (GHS-US)**



#### **Signal Word (GHS-US)**

: Danger.

#### **Hazard Statements (GHS-US)**

: H242 - Heating may cause a fire  
H271 - May cause fire or explosion; strong oxidizer  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H370 - Causes damage to organs  
H401 - Toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

#### **Precautionary Statements (GHS-US)**

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P220 - Keep/Store away from clothing, combustible materials, incompatible materials.  
P234 - Keep only in original container.  
P260 - Do not breathe vapors, mist, spray.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.  
P283 - Wear fire/flame resistant/retardant clothing.  
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.  
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.  
P306+P360 - If on clothing: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  
P307+P311 - If exposed: Call a poison center/doctor.  
P310 - Immediately call a poison center or doctor.  
P321 - Specific treatment (see section 4 on this SDS).  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use appropriate media to extinguish.  
P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.  
P391 - Collect spillage.  
P405 - Store locked up.  
P410 - Protect from sunlight.  
P411+P235 - Store at temperatures not exceeding storage and handling temperatures. Keep cool.  
P420 - Store away from other materials.  
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

### At 1.68% Dilution

**Hazard Pictograms (GHS-US)** :



**Signal Word (GHS-US)** :

Warning.

**Hazard Statements (GHS-US)** :

H316 - Causes mild skin irritation  
H319 - Causes serious eye irritation

**Precautionary Statements (GHS-US)** :

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332+P313 - If skin irritation occurs: Get medical attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

### Other Hazards

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Contains an oxidizing material which may accelerate fire. Flammable vapors can accumulate in head space of closed systems.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**Unknown Acute Toxicity (GHS-US):** Not available.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

#### As Sold

Name	Synonyms	Product Identifier	% (w/w)	Classification (GHS-US)
Acetic acid	Acetic acid, glacial / Ethanoic acid / Ethylic acid / Vinegar acid / ACETIC ACID / Acetic acid solution / Acetic acid ...% / acetic acid	(CAS-No.) 64-19-7	30-40	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
Ethaneperoxoic acid	Acetyl hydroperoxide / Peracetic acid / Peroxyacetic acid / Peracetic acid ...% / Peroxyethanoic acid / Peracetic acid . . % / peracetic acid	(CAS-No.) 79-21-0	10-17	Flam. Liq. 3, H226 Org. Perox. D, H242 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hydrogen peroxide	Hydrogen peroxide (H2O2) / HYDROGEN PEROXIDE / Hydrogen peroxide, aqueous solution / Dihydrogen dioxide / Hydrogen peroxide solution ...% / Aqueous solution of hydrogen peroxide / Hydrogen peroxide solution... % / Hydrogen peroxide solution / hydrogen peroxide	(CAS-No.) 7722-84-1	10-20	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 1, H370 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Phosphonic acid, (1-hydroxyethylidene)bis-	Ethylidene diphosphonic acid, 1-hydroxy- / Etidronic acid / 1-Hydroxyethane-1,1-diphosphonic acid / 1-Hydroxyethylidene-1,1-diphosphonic acid / ETIDRONIC ACID / Phosphonic acid, P,P'-(1-hydroxyethylidene)bis- / Phosphonic acid, (1-hydroxyethylidene)di- / 1-Hydroxyethylidenediphosphonic acid / 1-Hydroxyethylidene-diphosphonic acid / Hydroxyethanediphosphonic acid / HEDP / Hydroxyethylidene diphosphonic acid / 1-Oxyethylidenediphosphonic acid / Ethan-1-ol-1,1-diphosphonic acid / etidronic acid / 1-Hydroxyethane-1,1-diylbis(phosphonic acid) / 1-Hydroxyethylidene diphosphonic acid	(CAS-No.) 2809-21-4	<1.0	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

#### At 1.68% Dilution

Name	Synonyms	Product Identifier	% (w/w)	Classification (GHS-US)
Acetic acid	Acetic acid, glacial / Ethanoic acid / Ethylic acid / Vinegar acid / ACETIC ACID / Acetic acid solution / Acetic acid ...% / acetic acid	(CAS-No.) 64-19-7	<1.0	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ethaneperoxyic acid	Acetyl hydroperoxide / Peracetic acid / Peroxyacetic acid / Peracetic acid ...% / Peroxyethanoic acid / Peracetic acid . . % / peracetic acid	(CAS-No.) 79-21-0	<1.0	Flam. Liq. 3, H226 Org. Perox. D, H242 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hydrogen peroxide	Hydrogen peroxide (H2O2) / HYDROGEN PEROXIDE / Hydrogen peroxide, aqueous solution / Dihydrogen dioxide / Hydrogen peroxide solution ...% / Aqueous solution of hydrogen peroxide / Hydrogen peroxide solution... % / Hydrogen peroxide solution / hydrogen peroxide	(CAS-No.) 7722-84-1	<1.0	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 1, H370 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Phosphonic acid, (1-hydroxyethylidene)bis-	Ethylidene diphosphonic acid, 1-hydroxy- / Etidronic acid / 1-Hydroxyethane-1,1-diphosphonic acid / 1-Hydroxyethylidene-1,1-diphosphonic acid / ETIDRONIC ACID / Phosphonic acid, P,P'-(1-hydroxyethylidene)bis- / Phosphonic acid, (1-hydroxyethylidene)di- / 1-Hydroxyethylidenediphosphonic acid / 1-Hydroxyethylidene-diphosphonic acid / Hydroxyethanediphosphonic acid / HEDP / Hydroxyethylidene diphosphonic acid / 1-Oxyethylidenediphosphonic acid / Ethan-1-ol-1,1-diphosphonic acid / etidronic acid / 1-Hydroxyethane-1,1-diylbis(phosphonic acid) / 1-Hydroxyethylidene diphosphonic acid	(CAS-No.) 2809-21-4	<0.1	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

Full text of H-phrases: see section 16.

## SECTION 4: FIRST AID MEASURES

### 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 where possible). If exposed or concerned: Get medical advice/attention.

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. For exposure to undiluted product: Get immediate medical advice/attention. **For exposure to diluted product:** Get medical advice/attention for persistent symptoms.

**Skin Contact:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. **For exposure to undiluted product:** Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse. **For exposure to diluted product:** Get medical advice/attention for persistent symptoms.

**Eye Contact:** **For exposure to undiluted product:** Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention. **For exposure to diluted product:** Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention for persistent symptoms.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### **Most Important Symptoms and Effects Both Acute and Delayed**

**General: Undiluted product:** Causes severe skin burns and eye damage. May cause respiratory irritation. **Diluted product:** Skin and eye irritation.

**Inhalation: Undiluted product:** May be corrosive to the respiratory tract. **Undiluted and diluted product:** Irritation of the respiratory tract and the other mucous membranes.

**Skin Contact: Undiluted product:** Causes severe irritation which will progress to chemical burns. **Diluted product:** Mild irritant.

**Eye Contact: Undiluted product:** Causes permanent damage to the cornea, iris, or conjunctiva. **Diluted product:** Serious eye irritant.

**Ingestion: Undiluted product:** Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. **Diluted product:** May irritate the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** None expected under normal conditions of use.

### **Indication of Any Immediate Medical Attention and Special Treatment Needed**

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water may be ineffective but water should be used to keep fire/exposed container cool.

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

### **Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Heating may cause a fire or explosion. **Undiluted product:** May intensify fire; oxidizer.

**Explosion Hazard:** Peroxides and their decomposition products can be flammable, can ignite when heated, and explode under confinement. Will support combustion under fire conditions. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Contact with metallic substances may release flammable hydrogen gas. May form flammable/explosive vapor-air mixture.

**Reactivity:** Oxidizer: increases the burning rate of combustible materials. This material contains an organic peroxide. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction. May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. Product is an organic peroxide and may cause the uncontrolled polymerization of monomeric substances; extreme heat and hazardous vapors/fumes may be generated.

### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. DO NOT fight fire when fire reaches explosives, evacuate area.

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

**Hazardous Combustion Products:** Highly toxic and corrosive gases are released.

**Other information:** Contains an organic peroxides keep away from incompatible materials. Do not allow run-off from fire fighting to enter drains or water courses.

### **Reference to Other Sections**

Refer to section 9 for flammability properties.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Keep away from heat, hot surfaces, sparks, open flames, incompatible materials, combustible materials, and other ignition sources. No smoking. Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Do not allow product to spread into the environment.

### **For Non-Emergency Personnel**

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

**Emergency Procedures:** Evacuate unnecessary personnel. Stop leak if safe to do so.

### **For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Eliminate ignition sources first, then ventilate the area. 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.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### 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. Absorb and/or contain spill with inert material, then place in suitable container. As an immediate precautionary measure, isolate spill or leak area in all directions. Use only non-sparking tools.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Dilute with water. 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.

### Reference to Other Sections

See section 8, Exposure Controls and Personal Protection and section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Additional Hazards When Processed:** This material contains an organic peroxide. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Handle empty containers with care because residual vapors are flammable. May be corrosive to metals. When heated to decomposition, emits toxic fumes. May release corrosive vapors.

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe vapors, mist, or spray. Do not get in eyes, on skin, or on clothing. Handle empty containers with care because they may still present a hazard.

**Handling Temperature:** <30°C (86°F).

**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 again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Comply with applicable regulations.

**Storage Conditions:** Keep in fireproof place. Store at temperatures not exceeding handling and storage temperatures. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep/Store away from direct sunlight, incompatible materials, heat, hot surfaces, sparks, open flames, and other ignition sources. Store in corrosive resistant container with a resistant inner liner.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Metals. Monomers. May be corrosive to metals. Avoid ignition sources. May react violently with combustible materials. May react violently with finely divided metals.

**Storage Temperature:** <30°C (86°F).

**Information on Mixed Storage:** Store away from other materials. Keep/Store away from combustible material, oxidizable materials, and incompatible materials.

**Special Rules on Packaging:** Keep only in original container.

**Packaging Materials:** Store in corrosive resistant container with a resistant inner liner.

**Specific End Use(s):** FDA approved antimicrobial agent for application on poultry carcasses, poultry carcass parts, poultry organs, whole, half, or quart red meat carcasses, red meat carcass parts, trim, and organs. For professional use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 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), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

<b>Ethaneperoxyic acid (79-21-0)</b>		
USA ACGIH	ACGIH OEL STEL [ppm]	0.4 ppm (inhalable fraction and vapor)
USA ACGIH	ACGIH Chemical Category	Not Classifiable as a Human Carcinogen
<b>Acetic acid (64-19-7)</b>		
Mexico	OEL TWA (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	10 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Mexico	OEL STEL (ppm)	15 ppm
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	15 ppm
USA IDLH	US IDLH (ppm)	50 ppm
Ontario	OEL STEL (ppm)	15 ppm
Ontario	OEL TWA (ppm)	10 ppm
Québec	VECD (mg/m <sup>3</sup> )	37 mg/m <sup>3</sup>
Québec	VECD (ppm)	15 ppm
Québec	VEMP (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
Québec	VEMP (ppm)	10 ppm

### Hydrogen peroxide (7722-84-1)

Mexico	OEL TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	1 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	2 ppm
USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH Chemical Category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1.4 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	1 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1.4 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	1 ppm
USA IDLH	US IDLH (ppm)	75 ppm
Ontario	OEL TWA (ppm)	1 ppm
Québec	VEMP (mg/m <sup>3</sup> )	1.4 mg/m <sup>3</sup>
Québec	VEMP (ppm)	1 ppm

### Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Take precautionary measures against static discharges. Gas detectors should be used when flammable gases/vapors may be released.

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



**Materials for Protective Clothing:** Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing. Corrosion-proof clothing.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection: Undiluted product:** Chemical safety goggles and face shield. **Diluted product:** 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. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information:** When using, do not eat, drink or smoke.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on Basic Physical and Chemical Properties

Physical State	: Liquid.
Appearance	: Colorless.
Odor	: Sharp, pungent, vinegar-like.
Odor Threshold	: No data available.
pH	: <1
Relative Evaporation Rate (butylacetate=1)	: No data available.
Melting Point	: -49°C (-56.2°F)
Freezing Point	: No data available.
Boiling Point	: 109°C (228.2°F)
Flash Point	: 95°C (203°F)
Auto-ignition Temperature	: No data available.
Decomposition Temperature	: No data available.
Flammability (solid, gas)	: No data available.
Vapor Pressure	: 22 mm Hg (25°C/77°F)
Relative Vapor Density at 20°C	: No data available.
Relative Density	: No data available.
Specific Gravity	: 1.1
Solubility	: Complete.
Partition coefficient: n-octanol/water	: No data available.
Viscosity	: No data available.
Explosive Properties	: Heating may cause a fire.
Oxidizing Properties	: <b>Undiluted product:</b> Oxidizing liquid 1 - May intensify fire; oxidizer.
Other Information	: No additional information available.

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Oxidizer: increases the burning rate of combustible materials. This material contains an organic peroxide. Heating may cause hazardous decomposition. Hazardous decomposition products from peroxides are flammable and can be explosive under confinement. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction. May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. Product is an organic peroxide and may cause the uncontrolled polymerization of monomeric substances; extreme heat and hazardous vapors/fumes may be generated.

**Chemical Stability: Undiluted product:** May form flammable/explosive vapor-air mixture. Heating may cause a fire. May intensify fire; oxidizer.

**Possibility of Hazardous Reactions: Undiluted product:** Product is an organic peroxide and may cause the uncontrolled polymerization of monomeric substances; extreme heat and hazardous vapors/fumes may be generated.

**Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, ignition sources, combustible materials, incompatible materials. Sparks, heat, open flame, combustible materials, organic material and other sources of ignition.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Metals. Monomers. May be corrosive to metals. Avoid ignition sources. May react violently with combustible materials. May react violently with finely divided metals.

**Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). May release flammable gases. Thermal decomposition generates: Corrosive vapors.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on Toxicological Effects - Product

**Acute Toxicity (Oral, Dermal, Inhalation):** Not classified.

#### LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	>90000 mg/kg
Ethaneperoxoic acid (79-21-0)	
LD50 Oral Rat	1540 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	476 mg/m <sup>3</sup> (Exposure time: 1 h)
LC50 Inhalation Rat	0.262 mg/l/4h

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ATE (Gases)	4,500.00 ppmV/4h
ATE (Dust/Mist)	1.50 mg/l/4h
<b>Acetic acid (64-19-7)</b>	
LD50 Oral Rat	3310 mg/kg
<b>Hydrogen peroxide (7722-84-1)</b>	
LD50 Oral Rat	1193 mg/kg (Species: Sprague-Dawley; Exposure time: 4 h)
LD50 Dermal Rat	4060 mg/kg
LD50 Dermal Rabbit	>2000 mg/kg
ATE (Dust/Mist)	1.50 mg/l/4h
IARC group	3
<b>Phosphonic acid, (1-hydroxyethylidene)bis- (2809-21-4)</b>	
LD50 Oral Rat	1878 mg/kg
LD50 Dermal Rabbit	>10000 mg/kg

**Skin Corrosion/Irritation: Undiluted product:** Causes severe skin burns. **Diluted product:** Mild skin irritant. (pH: <1)

**Serious Eye Damage/Irritation: Undiluted product:** Causes severe eye damage. **Diluted product:** Causes serious eye irritation. (pH: <1)

**Respiratory or Skin Sensitization:** Not classified.

**Germ Cell Mutagenicity:** Not classified.

**Carcinogenicity:** Not classified.

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity (Single Exposure): Undiluted product:** Causes damage to organs.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation: Undiluted product:** May be corrosive to the respiratory tract. **Undiluted and diluted product:** Irritation of the respiratory tract and the other mucous membranes.

**Symptoms/Injuries After Skin Contact: Undiluted product:** Causes severe irritation progressing to chemical burns. **Diluted product:** Mild irritant.

**Symptoms/Injuries After Eye Contact: Undiluted product:** Causes permanent damage to the cornea, iris, or conjunctiva. **Diluted product:** Serious eye irritant.

**Symptoms/Injuries After Ingestion: Undiluted product:** Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. **Diluted product:** May irritate the linings of the mouth, throat, and gastrointestinal tract.

**Chronic Symptoms:** None expected under normal conditions of use.

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity Ecology - General:** Toxic to aquatic life.

<b>Ethaneperoxoic acid (79-21-0)</b>	
LC50 Fish 1	1.1 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-static])
EC50 - Crustacea [1]	3.3 mg/l
LC50 Fish 2	0.53 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
<b>Acetic acid (64-19-7)</b>	
LC50 Fish 1	79 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	65 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	18 – 56 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
<b>Phosphonic acid, (1-hydroxyethylidene)bis- (2809-21-4)</b>	
LC50 Fish 1	868 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	527 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	360 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
NOEC (Acute)	1000 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

### Persistence and Degradability

<b>Perasafe FC-100 (AFCO 4360)</b>	
Persistence and Degradability	Not established.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Bioaccumulative Potential

<b>Perasafe FC-100 (AFCO 4360)</b>	
Bioaccumulative Potential	Not established.
<b>Ethaneperoxoic acid (79-21-0)</b>	
BCF Fish 1	(not bioaccumulative, rapid degradation).
<b>Acetic acid (64-19-7)</b>	
Log Pow	-0.31 (at 20°C)
<b>Hydrogen peroxide (7722-84-1)</b>	
BCF Fish 1	(no bioaccumulation).
<b>Phosphonic acid, (1-hydroxyethylidene)bis- (2809-21-4)</b>	
Log Pow	3.49

**Mobility in Soil:** No additional information available.

### Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Treatment Methods:** Incineration is the preferred method for disposal of waste product.

**Sewage Disposal Recommendations:** Do not dispose of waste into sewer.

**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.

**Ecology - Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

<b>Proper Shipping Name</b>	: ORGANIC PEROXIDE TYPE F, LIQUID (with less than or equal to 17% Peracetic Acid with Less Than or Equal to 26% Hydrogen Peroxide)
<b>Hazard Class</b>	: 5.2
<b>Identification Number</b>	: UN3109
<b>Label Codes</b>	: 5.2, 8*
<b>Marine Pollutant</b>	: Yes
<b>ERG Number</b>	: 145



### 14.2. In Accordance with IMDG

<b>Proper Shipping Name</b>	: ORGANIC PEROXIDE TYPE F, LIQUID (with less than or equal to 17% Peracetic Acid with Less Than or Equal to 26% Hydrogen Peroxide)
<b>Hazard Class</b>	: 5.2
<b>Division</b>	: 5.2
<b>Subsidiary Risk(s)</b>	: 8
<b>Identification Number</b>	: UN3109
<b>Label Codes</b>	: 5.2, 8*
<b>EmS-No. (Fire)</b>	: F-J
<b>EmS-No. (Spillage)</b>	: S-R
<b>Marine Pollutant</b>	: Yes



### 14.3. In Accordance with IATA

<b>Proper Shipping Name</b>	: ORGANIC PEROXIDE TYPE F, LIQUID (with less than or equal to 17% Peracetic Acid with Less Than or Equal to 26% Hydrogen Peroxide)
<b>Identification Number</b>	: UN3109
<b>Hazard Class</b>	: 5.2
<b>Label Codes</b>	: 5.2, 8*
<b>Division</b>	: 5.2



# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Subsidiary Risk(s) : 8  
ERG Code (IATA) : 5L

### 14.4 In Accordance with TDG

Proper Shipping Name : ORGANIC PEROXIDE TYPE F, LIQUID (with less than or equal to 17% Peracetic Acid with Less Than or Equal to 26% Hydrogen Peroxide)

Hazard Class : 5.2,8\*

Identification Number : UN3109

Label Codes : 5.2



\* - Corrosive symbol and subsidiary hazard required per 49CFR173.225(c), Table 1, Note 13, requiring the addition of the Corrosive Symbol and Subsidiary Class, applies to the specific entry listed above.

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

<b>Perasafe FC-100 (AFCO 4360)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard. Reactive hazard. Fire hazard. Delayed (chronic) health hazard. Physical hazard - Organic peroxides. Health hazard - Specific target organ toxicity (single or repeated exposure). Physical hazard - Oxidizer (liquid, solid or gas). Health hazard - Serious eye damage or eye irritation. Health hazard - Skin corrosion or Irritation.
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
<b>Ethaneperoxoic acid (79-21-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory. Listed on the United States SARA Section 302. Subject to reporting requirements of United States SARA Section 313.	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	500 lbs.
<b>SARA Section 313 - Emission Reporting</b>	1%
<b>Acetic acid (64-19-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
<b>CERCLA RQ</b>	5,000 lbs.
<b>Hydrogen peroxide (7722-84-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory. Listed on the United States SARA Section 302.	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	1,000 lbs. (concentration >52%)
<b>Phosphonic acid, (1-hydroxyethylidene)bis- (2809-21-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

### US State Regulations

<b>Ethaneperoxoic acid (79-21-0)</b>
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728). U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances. U.S. - New Jersey - Environmental Hazardous Substances List. U.S. - New Jersey - Right to Know Hazardous Substance List. U.S. - New Jersey - Special Health Hazards Substances List. U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS). U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances. U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List. U.S. - Pennsylvania - RTK (Right to Know) List.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Acetic acid (64-19-7)

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances.  
U.S. - New Jersey - Right to Know Hazardous Substance List.  
U.S. - New Jersey - Special Health Hazards Substances List.  
U.S. - New York - Occupational Exposure Limits – TWAs.  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances.  
U.S. - North Carolina - Control of Toxic Air Pollutants.  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List.  
U.S. - Pennsylvania - RTK (Right to Know) List.  
U.S. - Texas - Effects Screening Levels - Long Term.  
U.S. - Texas - Effects Screening Levels - Short Term.

### Hydrogen peroxide (7722-84-1)

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1.  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2.  
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity.  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1.  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2.  
U.S. - Massachusetts - Right To Know List.  
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances.  
U.S. - New Jersey - Environmental Hazardous Substances List.  
U.S. - New Jersey - Right to Know Hazardous Substance List.  
U.S. - New Jersey - Special Health Hazards Substances List.  
U.S. - New York - Occupational Exposure Limits – TWAs.  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances.  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List.  
U.S. - Pennsylvania - RTK (Right to Know) List.  
U.S. - Texas - Effects Screening Levels - Long Term.  
U.S. - Texas - Effects Screening Levels - Short Term.

## Canadian Regulations

### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Ethaneperoxoic acid (79-21-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Acetic acid (64-19-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Hydrogen peroxide (7722-84-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Phosphonic acid, (1-hydroxyethylidene)bis- (2809-21-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

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

**Revision date** : 07/15/2021  
**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:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4.
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4.
Acute Tox. 4 (Inhalation: dust, mist)	Acute toxicity (inhalation: dust, mist) Category 4.
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1.
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2.
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3.

# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1.
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2.
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3.
Eye Dam. 1	Serious eye damage/eye irritation Category 1.
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A.
Flam. Liq. 3	Flammable liquids Category 3.
Met. Corr. 1	Corrosive to metals Category 1.
Org. Perox. D	Organic Peroxide Category D.
Org. Perox. F	Organic Peroxide Category F.
Ox. Liq. 1	Oxidizing liquids Category 1.
Skin Corr. 1A	Skin corrosion/irritation Category 1A.
Skin Corr. 1C	Skin corrosion/irritation Category 1C.
Skin Irrit. 3	Skin corrosion/irritation Category 3.
STOT SE 1	Specific target organ toxicity single exposure Category 1.
STOT SE 3	Specific target organ toxicity single exposure Category 3, Respiratory tract irritation.
H226	Flammable liquid and vapor.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidizer.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H316	Causes mild skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Product as Sold – Before Dilution

#### NFPA Health Hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

#### NFPA Fire Hazard

: 1 - Must be preheated before ignition can occur.

#### NFPA Reactivity

: 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.

#### NFPA Specific Hazard

: OX - This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.

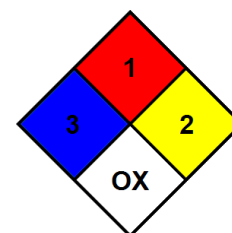
#### HMIS III Rating

#### Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.

#### Flammability

: 1 - Slight Hazard.



# Perasafe FC-100 (AFCO 4360)

## Safety Data Sheet

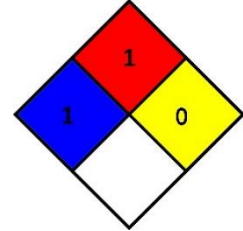
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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**Physical** : 2 - Moderate Hazard.  
**Personal Protection** : D

### At 1.68% Dilution

**NFPA Health Hazard** : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.  
**NFPA Fire Hazard** : 1 - Must be preheated before ignition can occur.  
**NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

**Health** : 1 Slight Hazard - Irritation or minor reversible injury possible.  
**Flammability** : 1 - Slight Hazard.  
**Physical** : 0 - Minimal Hazard.  
**Personal Protection** : B

### Party Responsible for the Preparation of This Document

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*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 SDS 2015 (U.S., Can., Mex.)