



SHEPARD BROS.

SAFETY DATA SHEET

SB-Peracetic Acid FV-E

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: SBPAFVE
Product Name: SB-Peracetic Acid FV-E
Company Name: Shepard Bros., Inc.
 503 S. Cypress St.
 La Habra, CA 90631
Phone Number: +1 (562)697-1366
Web site address: www.shepardbros.com
Emergency Contact: CHEMTREC +1 (800)424-9300
Product Category: Antimicrobial Agent

2. HAZARDS IDENTIFICATION

Flammable Liquids, Category 3
 Oxidizing Liquids, Category 1
 Organic Peroxides, Type D
 Acute Toxicity: Inhalation, Category 4
 Acute Toxicity: Oral, Category 4
 Skin Corrosion/Irritation, Category 1A



GHS Signal Word: **Danger**

GHS Hazard Phrases: H226 - Flammable liquid and vapor.
 H242 - Heating may cause a fire.
 H271 - May cause fire or explosion; strong oxidizer.
 H302+332 - Harmful if swallowed or if inhaled.
 H314 - Causes severe skin burns and eye damage.
 H332 - Harmful if inhaled.
 H401 - Toxic to aquatic life.

GHS Precaution Phrases: P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P220 - Keep away from combustible materials.
 P221 - Take any precaution to avoid mixing with combustibles.
 P233 - Keep container tightly closed.
 P234 - Keep only in original container.
 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.
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protec.
 P283 - Wear fire/flame resistant/retardant clothing.

GHS Response Phrases: P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 - Rinse mouth.
 P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P363 - Wash contaminated clothing before reuse.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician.
P306+360 - IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P321 - Specific treatment see Section 4 reference to supplemental first aid instruction - if immediate measures are required.
P371+380+375 - In case of major fire and large quantities: evacuate area and fight fire remotely due to the risk of explosion.

GHS Storage and Disposal Phrases:

P403+235 - Store in cool/well-ventilated place. P405 - Store locked up. P410 - Protect from sunlight. P411+235 - Store in cool place at temperatures not exceeding 30°C/86°F. P420 - Store away from other materials. P501 - Dispose of contents and containers in accordance with local, regional, national, and international regulations.

Hazard Rating System:



Potential Health Effects (Acute and Chronic):

Chronic: Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. Skin sensitization to acetic acid is rare, but has occurred.

Inhalation:

Causes chemical burns to the respiratory tract. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be absorbed through the lungs. May cause burning of eyes and flow of tears. Exposure may lead to bronchitis, pharyngitis, and dental erosion. Prolonged inhalation may be harmful. Significant overexposure may result in kidney and liver damage. Effects may be delayed.

Skin Contact:

Corrosive, causes skin burning. May be harmful if absorbed through the skin. May cause deep, penetrating ulcers of the skin. Can cause chemical burn. Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands.

Eye Contact:

Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage.

Ingestion:

May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. Rapidly absorbed from the gastrointestinal tract. May cause polyuria, oliguria (excretion of a diminished amount of urine in relation to the fluid intake) and anuria (complete suppression of urination). Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
7722-84-1	Hydrogen peroxide	22.0 - 23.0 %
79-21-0	Peracetic acid	15.0 - 16.0 %
64-19-7	Acetic acid	15.0 - 17.0 %



4. FIRST AID MEASURES

Emergency and First Aid

Procedures:

- In Case of Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- In Case of Skin Contact:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Gently wash with plenty of soap and water. Wash contaminated clothing separately before reuse. Get medical aid.
- In Case of Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do after 5 minutes and continue rinsing for an additional 15 minutes. Get medical aid immediately.
- In Case of Ingestion:** If swallowed, do NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
- Signs and Symptoms Of Exposure:** Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death. Significant overexposure may result in kidney and liver damage. Effects may be delayed.
- Note to Physician:** This formulation can be corrosive to the skin, eyes and mucous membranes. Consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered. Treatment is controlled removal of exposure followed by symptomatic and supportive care. Show this safety data sheet to the doctor in attendance.

5. FIRE FIGHTING MEASURES

- Flash Pt:** 200 F (93.3 C) Method Used: Closed Cup
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** 270 C (518 F)
- Suitable Extinguishing Media:** Use flooding quantities of water only.
- Unsuitable Extinguishing Media:** Chemical and CO2 extinguisher are NOT effective with fires involving peracetic acid or hydrogen peroxide.
- Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved (or equivalent), and full protective gear. Evacuate area and fight fire from a safe distance. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Use water spray to keep fire-exposed containers cool. Containers can build up pressure if exposed to heat (fire). Containers may explode in the heat of a fire.
- Flammable Properties and Hazards:** Carbon monoxide, Carbon dioxide, irritating and toxic fumes and gases, formed under fire conditions. Use a water spray or fog to knockdown irritating vapors.



6. ACCIDENTAL RELEASE MEASURES

**Protective Precautions,
Protective Equipment and
Emergency Procedures:**

Use proper personal protective equipment as indicated in Section 8.

Note: When hydrogen peroxide evaporates, it becomes more concentrated. If in contact with organic materials such as paper, fabric, cotton, leather, wood or other combustibles, it may ignite and result in a fire. Organic materials containing residual hydrogen peroxide should be submerged or rinsed with a large amount of water to ensure that it has all been removed.

**Environmental Precautions:
Steps To Be Taken In Case
Material Is Released Or
Spilled:**

Do not let product enter drains, sewers, watersheds or water systems.

Provide ventilation. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Contain spill using an inert diking material. Transfer material into an approved container for possible recovery and reuse or for disposal. Dilute residue with at least twenty volumes of water and allow the hydrogen peroxide to decompose followed by placing it in suitable containers. Never return spilled product into its original container for reuse. Material that cannot be recovered or reused should be disposed of in accordance with all Federal, State and Local regulations.

7. HANDLING AND STORAGE

**Precautions To Be Taken in
Handling:**

Use only with adequate ventilation. Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Ground and bond containers when transferring material. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep away from heat, sparks and flame. Use corrosion-resistant transfer equipment when dispensing. Normal measures for preventive fire protection.

Avoid contamination; impurities accelerate decomposition. Never return product to original container. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Refer to section 13 "Disposal" for handling information of empty containers.

**Precautions To Be Taken in
Storing:**

Store in a cool, dry, well-ventilated area away from incompatible substances. Do not store near reducing agents. Do not store near combustible materials. Keep away from heat, sparks and flame. Do not store in direct sunlight. For quality purposes, avoid temperatures above 86F.

Do NOT store in containers made of light metals. Recommended containers should be made of PVC, polypropylene, linear (not cross linked) polyethylene, ceramics, or glass. Do not double stack. Use first in, first out storage system. Containers must be vented.

Other Precautions:

Handle in accordance with good industrial hygiene and safety practices. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION



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Supersedes Revision: 06/30/2013

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7722-84-1	Hydrogen peroxide	PEL: 1 ppm	TLV: 1 ppm	No data.
79-21-0	Peracetic acid	No data.	STEL: 0.4 ppm	No data.
64-19-7	Acetic acid	PEL: 10 ppm	TLV: 10 ppm STEL: 15 ppm	No data.

Respiratory Equipment (Specify Type): Avoid breathing vapors and mists. Use a NIOSH/MSHA approved respirator, with a full-facepiece and supplied air or a full-facepiece respirator with acid gas cartridges when concentrations are unknown.

Eye Protection: Wear chemical splash goggles and a full-face shield where there is potential for eye contact.

Protective Gloves: Wear appropriate gloves to prevent skin exposure. Rubber or neoprene gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure. Chemical resistant apron. Rubber or neoprene boots. Completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as fabrics, cotton, leather or other combustibles, can cause the material to ignite and result in a fire.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to minimize exposure levels. Use a corrosion-resistant ventilation system.

Work/Hygienic/Maintenance Practices: Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Appearance: Transparent. colorless. Liquid. Odor: Sharp. pungent odor. Vinegar-like odor.
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	270 C (518 F)
Flash Pt:	200 F (93.3 C) Method Used: Closed Cup
Explosive Limits:	LEL: No data. UEL: No data.
Specific Gravity (Water = 1):	No data.
Density:	9.47 LB/GA
Vapor Pressure (vs. Air or mm Hg):	22 MM_HG at 25.0 C (77.0 F)
Vapor Density (vs. Air = 1):	NA
Evaporation Rate:	No data.
Solubility in Water:	Complete at 25.0 C (77.0 F)



pH: < 1 (10% soln)
Percent Volatile: N.A.
Molecular Formula & Weight: Proprietary Formula 0.0

10. STABILITY AND REACTIVITY

Reactivity: Contamination or heat could initiate decomposition. The product decomposes producing acetic acid and oxygen gas that supports combustion.

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability: Incompatible materials, Excess heat, Ignition sources, combustible materials, such as paper and wood. Contamination or heat could initiate decomposition. Avoid light effect/sun rays.

Temperatures above 86F will degrade product, accelerate decomposition, and reduce shelf life.

Incompatibility - Materials To Avoid: Avoid contact of this product with: dirt. Strong oxidizing agents, Reducing agents, Organic materials, Strong bases, Heavy metals such as chromium, cobalt, iron, copper and aluminum. Heavy metal salts.

Hazardous Decomposition or Byproducts: Carbon monoxide, Carbon dioxide, irritating and toxic fumes and gases, formed under fire conditions. The product decomposes producing acetic acid and oxygen gas that supports combustion.

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: No information available.
Neurotoxicity: No information available.

Other Studies: Inhalation LC50: 5% PAA: 4,080 mg/m³ (4157ppm) (4h) (rat), 100% PAA: 204 mg/m³ (66ppm) (4h) (rat)

Other Studies: CAS# 64-19-7:
Acute toxicity, LD50, Oral, Rat, 3310 mg/kg.
Other Studies: CAS# 7722-84-1:
Acute toxicity, LC50, Inhalation, Rat, 2.0 gm/m³, 4 H.
Acute toxicity, LD50, Oral, Rat, 1518 mg/kg.
Other Studies: CAS# 79-21-0:
Acute toxicity, LD50, Oral, Mouse, 210 mg/kg
Acute toxicity, LD50, Skin, Rabbit, 1410 uL/kg.

Irritation or Corrosion: Other Studies: CAS# 64-19-7:
Standard Draize Test, Skin, Species: Rabbit, 50 mg, 24H.

Other Studies: CAS# 79-21-0:
Standard Draize Test, Eyes, Species:Rabbit, 1.000 mg.

Symptoms related to Toxicological Characteristics: Causes severe eye irritation. Contact with liquid or vapor causes severe burns and possible irreversible eye damage. Corrosive, causes skin burning. May be harmful if absorbed through the skin. May cause deep, penetrating ulcers of the skin. Can cause



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chemical burn. Contact with the skin may cause blackening and hyperkeratosis of the skin of the hands.

Causes chemical burns to the respiratory tract. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be absorbed through the lungs. May cause burning of eyes and flow of tears. Exposure may lead to bronchitis, pharyngitis, and dental erosion.

May cause severe and permanent damage to the digestive tract. Causes severe pain, nausea, vomiting, diarrhea, and shock. Rapidly absorbed from the gastrointestinal tract. May cause polyuria, oliguria (excretion of a diminished amount of urine in relation to the fluid intake) and anuria (complete suppression of urination). Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

Chronic Toxicological Effects:

Prolonged inhalation may be harmful. Significant overexposure may result in kidney and liver damage. Effects may be delayed. Chronic exposure to acetic acid may cause erosion of dental enamel, bronchitis, eye irritation, darkening of the skin, and chronic inflammation of the respiratory tract. Acetic acid can cause occupational asthma. Skin sensitization to acetic acid is rare, but has occurred.

Carcinogenicity/Other Information:

CAS# 7722-84-1: ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans. IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

Carcinogenicity:

NTP? No IARC Monographs? No OSHA Regulated? No

12. ECOLOGICAL INFORMATION

General Ecological Information:

EPA Registration Number: 63838-2-50600

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

This pesticide is toxic to birds, mammals, fish and aquatic invertebrates. Caution should be used when applying indoors because pets may be at risk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Physical: Natural waters will neutralize dilute solutions to acetate salts.

Evaporation from dry surfaces is likely to occur.

Ecotoxicity:

General data for a 15% Peracetic Acid Product:

96-hour LC50 = 1.6 mg/L (Rainbow trout)

96-hour LC50 = 1.1 mg/L (Bluegill sunfish)

48-hour EC50 = 0.73 mg/L (Daphnia magna)

120-hour EC50 = 0.18 mg/L (Selenastrum, green algae)

Results of PBT and vPvB assessment: No data available.

Persistence and Degradability: Environmental: If released to the atmosphere, it is degraded in the vapor-phase by reaction with photochemically produced hydroxyl radicals (estimated typical half-life of 26.7 days). It occurs in atmospheric particulate matter in acetate form and physical removal from air can occur via wet and dry deposition. Aqueous solutions of peracetic acid hydrolyze to acetic acid and hydrogen peroxide.

Bioaccumulative Potential: Acetic acid shows no potential for biological accumulation or food chain contamination.

Mobility in Soil: When spilled on soil, the liquid will spread on the surface and penetrate into the soil at a rate dependent on the soil type and its water content.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Never return spilled product into its original container for reuse. Material that cannot be recovered or reused should be disposed of in accordance with all Federal, State and Local regulations.

Drums - Empty as thoroughly as possible. Triple rinse drum before disposal.
Totes - IBCs should be emptied as thoroughly as possible and returned without rinsing.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: ORGANIC PEROXIDE TYPE F, LIQUID. (with less than or equal to 17% Peroxyacetic Acid, with less than or equal to 26% Hydrogen Peroxide)

DOT Hazard Class: 5.2 ORGANIC PEROXIDE

UN/NA Number: UN3109 **Packing Group:** II



15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7722-84-1	Hydrogen peroxide	Yes 1000 LB	No	No
79-21-0	Peracetic acid	Yes 500 LB	No	Yes
64-19-7	Acetic acid	No	Yes 5000 LB	No

Other US EPA or State Lists

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7722-84-1	Hydrogen peroxide	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8
79-21-0	Peracetic acid	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC
64-19-7	Acetic acid	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: Title 8



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Regulatory Information:

EPA Registration Number: 63838-2-50600

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER. CORROSIVE. Do not enter an enclosed area without proper respiratory protection. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not breathe vapor or spray mist. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

16. OTHER INFORMATION

Revision Date:

09/28/2016

Preparer Name:

Crystal Maira

Additional Information:

09/28/2016 - Routine review and update of GHS classifications.

Company Policy or

Disclaimer:

Information presented herein is believed to be accurate and reliable to the best of our knowledge. However, we make no warranty or merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process. Users should make their own investigations to determine the suitability of the information for their particular purposes.