

MATERIAL SAFETY DATA SHEET

Section 1: IDENTIFICATION

Acecide[®]-C Solution 1

Recommended Use: For high-level disinfection and/or sterilization of medical instruments

BEST SANITIZERS, INC.
P.O. Box 1360
Penn Valley, CA 95946
(888) 225-3267

BEST SANITIZERS, INC.
310 Providence Mine Rd. Suite 120
Nevada City, CA 95959
(888) 225-3267

CHEMTREC Toll-free 24 hour Emergency Telephone Number: (800) 424-9300

LEGEND HMIS/NFPA		Health	/	4
Severe	4	Flammability		0
Serious	3	Physical Hazard		2
Moderate	2	Personal Protection		X
Slight	1			
Minimal	0			

Section 2: HAZARDS

Emergency Overview	DANGER -- CORROSIVE Oxidant Causes eye damage HARMFUL IF SWALLOWED Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield or safety glasses) and rubber gloves when handling. Wash hands thoroughly with soap and water after handling. Do not use with devices containing silver, copper, or brass. Keep out of reach of children.
Potential short-term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion
Eyes	Causes eye damage
Skin	May cause chemical burns
Inhalation	Excessive inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness)
Ingestion	Ingestion is unlikely through the normal anticipated use of this product. Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, oedema, drying, defatting and cracking of the skin. The product causes burns of eyes, skin and mucous membranes.

Section 3: COMPOSITION INFORMATION

Ingredient	CAS No	EC No	Proportion
Ingredients deemed not to be hazardous	Not applicable	Not applicable	To 100%
Water	7732-18-5	231-791-2	< 54%
Acetic Acid	64-19-7	200-580-7	25 - 35%
Peracetic Acid	79-21-0	201-186-8	< 9%
Hydrogen Peroxide	7722-84-1	231-765-0	< 9%

Section 4: FIRST AID

Eye (Contact)	Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes.
Skin (Contact)	Remove contaminated clothing and flush skin and hair with running water.
Inhalation (Breathing)	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Ingestion (Swallowing)	DO NOT induce vomiting. For advice, contact a doctor.
Advice to Doctor	Treat symptomatically.
First Aid Facilities	Ensure an eye wash and safety shower are available and ready for use.
Additional Information	No aggravated medical conditions are known to be caused by exposure to this product.

Section 5: FIREFIGHTING MEASURE

Suitable Extinguishing Media	Solution does not burn. Use extinguishing media suited to the materials to cool containers. e.g. Dry chemical, CO ₂ or water spray.
Hazards From Combustion Products	In the event of a fire, product may decompose yielding oxygen. Risk of over pressure and burst due to decomposition in confined spaces. Release of oxygen may support combustion.
Precautions For Fire Fighters and Special Protective Equipment	Firefighters must wear full protective clothing including self contained breathing apparatus and chemical splash suit. Ensure that no spillage enters drains or watercourses. Remove from the vicinity containers not involved in the fire.

Section 6: ACCIDENTAL RELEASE MEASURES

Spills and Clean up	For small volumes (approximately less than 1L) - Clean up personnel should wear full protective clothing. Restrict access to area until completion of cleanup. Stop leak if safe to do so. Contain spill with liquid binding material, such as toweling or diatomaceous earth. Collect and dispose of spilled material according to local regulations. Wash away remnants with copious amounts of cold water.
----------------------------	---

In the unlikely event of breach of multiple containers, prevent large spills from entering sewers or waterways. Collect and dispose of spilled material according to local regulations. Wash away remnants with copious amounts of cold water. Clean area by working from the periphery to the centre of spill or from the edge of the room to the centre.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling	Product is intended for the high-level disinfection and sterilization of medical instruments. Any non-intended or non-authorized use of this product may result in severe personal injury or damage to equipment. Do not manually open container. When used in an automatic endoscope reprocessor, do not open machine while in use. Note: Once the Acecide-C Solutions are mixed, the resulting solution should be handled in accordance with the Acecide-C Solution 1 Material Safety Data Sheet. Wash hands and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.
--------------------------------------	---

Do not use with chlorine-based products. The product is acidic in nature and reaction with chlorine-based products will produce poisonous chlorine gas.

Conditions for Safe Storage Store in a cool, dry, well ventilated area away from direct sunlight and incompatible materials. Keep container tightly sealed. Store between 0°C and 25°C.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards

Ingredient	CAS No	ES-TWA	ES-STEL
Hydrogen Peroxide	7722-84-1	1ppm 1.4mg/m ³	Not available
Acetic Acid	64-19-7	10ppm 25mg/m ³	15ppm 37mg/m ³

Biological Limit Values Not available.

Engineering Controls Ensure adequate ventilation to keep airborne concentrations below exposure standards.

Personal Protective Equipment



Eye/face protection – Chemical resistant goggles or face shield should be worn to prevent eye/face contact.
Skin protection – Use nitrile rubber gloves to prevent hand contact. Wear an apron or acid proof protective clothing and rubber or plastic boots to prevent skin contact.
Respiratory protection – Respirator is not usually necessary but if product is being used in a confined area where mist is a problem, use a respirator suitable for organic vapours.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear, colourless liquid.	Boiling Point Not available.
Odour Characteristic strong odour.	Freezing Point Not available.
pH <1 (undiluted), pH 3 (100-fold dilution)	Solubility Soluble in water.
Specific Gravity 1.1	Flash Point None
Vapour Pressure Not available.	Upper and Lower Flammability limits (in air) Not available.
Vapour Density Not available.	Ignition Temperature Not available.

Section 10: STABILITY AND REACTIVITY

Chemical Stability	Decomposes on heating and over time.
Conditions to avoid	Avoid high temperatures (store between 0°C and 25°C). Protect against physical damage.
Incompatible materials	Sources of heat, flammable/combustible material, caustic, reducing agents, metals (iron, copper, etc) and organic materials.
Hazardous decomposition products	Oxygen produced on decomposition.
Hazardous reactions	Violent reactions can occur when combined with incompatible materials.

Do not use with chlorine-based products. The product is acidic in nature and reaction with chlorine-based products will produce poisonous chlorine gas.

Section 11: TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute

Swallowed Considered an unlikely route of entry in commercial / industrial environments. May cause irritation and tissue damage in the mucous membranes.

Eye Pain and reddening will occur. Severe damage may result if not treated immediately.

Skin Causes irritation, redness and possible burning on contact with skin.

Inhaled Inhalation of mist may cause irritation to the mucous membranes.

Chronic

Swallowed Not known.

Eye Permanent injury may result.

Skin Not known.

Inhalation Not known.

TOXICITY DATA

Peracetic acid	LD ₅₀ 210mg/kg (oral, mouse)	RTECS SD8750000
Hydrogen peroxide	LD ₅₀ 1518mg/kg (oral, rat)	RTECS MX0890000
Acetic acid	LD ₅₀ 3310mg/kg (oral, rat)	RTECS AF1225000

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity Not known.

Persistence and degradability Not known.

Mobility Not known.

Section 13: DISPOSAL CONSIDERATIONS

Disposal method Before disposal, check to see if the wastewater conforms to the local, federal, state and national standards (for pH, BOD, COD and other measures). Check with your local Publicly Owned Treatment Works (POTW) to determine if peracetic acid solutions like Acecide-C Solution 1 and Acecide-C Use-Solution can be disposed of in the sanitary sewer system. Some POTWs may prohibit the disposal of peracetic acid solutions in the sanitary sewer or may require dilution with copious amounts of water and/or neutralization prior to disposal. In most cases, Acecide-C Use-Solution can be disposed of direct to drain but there may be exceptions

Disposing of the concentrated peracetic acid solution (Acecide-C Solution 1) directly into the sewage may affect activated sludge and cause problems. When disposing of Acecide-C Solution 1, follow one of the methods described below, making sure to use personal protection equipment (PPE) such as rubber gloves, rubber apron, safety goggles and full face shield to avoid contact with the solution.

- (1) Before disposal, mix Acecide-C Solution 1 with Acecide-C Solution 2 and sufficiently dilute with copious amounts of water.
- (2) Mix with alkaline chemicals to neutralize and degrade hydrogen peroxide and peracetic acid.
- (3) Add a reducing agent such as sodium thiosulfate (pentahydrate) to degrade hydrogen peroxide and peracetic acid.

Rinse empty containers thoroughly before recycling or disposing to an authorized landfill.

For bulk volumes refer to State/Territory Land Waste Management Authority. Dispose of material through a licensed waste contractor.

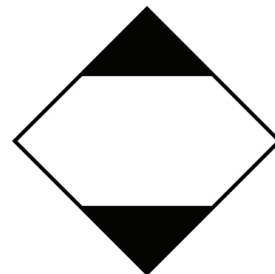
Special precautions Advise disposal agent of nature of the product.

Section 14: TRANSPORT INFORMATION

Classified as Dangerous Goods by the criteria of the European Transportation Law, including the following regulations: ADR, RID, ANDR, IMDG and ICAO/IATA.

US DOT Approval CA2013030021 as the Competent Authority expiring July 31, 2018 stating that Acecide-C Solution 1 meets the definition of an Organic Peroxide Type G and is not regulated as an organic peroxide in accordance with the provisions of the approval. Acecide-C Solution 1 is packaged as a limited quantity of corrosive liquid, acidic, organic material.

UN Number	3265
UN Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s. (acetic acid, peracetic acid, hydrogen peroxide) Not regulated as an organic peroxide
Class and subsidiary risk	Class 8—Corrosive
Packing Group	II
Special precautions for user	Keep Out of Direct Sunlight, Keep from freezing, Cleaning Compounds. Approval for motor vehicle transport only.
Hazchem Code	Not available.



Section 15: REGULATORY INFORMATION

Classified as hazardous by the criteria of EG directive 67/548/EEC
Dangerous Goods Class 8—Corrosive

R34:	Causes burns.
R36/38:	Irritating to eyes and skin.
S3/7:	Keep container tightly closed in a cool place.
S14:	Keep away from sources of heat, combustible material, caustic, reducing agents, dirt, metals (aluminium, iron, copper, chromium, etc) and organic material.
S23:	Do not breathe vapour.
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28:	After contact with skin, wash immediately with plenty of soap-suds.
S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
S45:	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

Section 16: OTHER INFORMATION

Note: Once the Acecide-C Solutions are mixed, the resulting solution should be handled in accordance with the Acecide-C Solution 1 Material Safety Data Sheet.