

1. Material, preparation and company identification

Trade Name: SafeSolDD1
Supplier: SafeSol Limited
51 Mount Stuart Road
Rothesay
Isle of Bute PA20 9EB
Emergency Telephone: 01700 500623
Manufacturer: SafeSol Limited

2. Compounds/Details about Components

Chemical	Main Components - Hydrogen Peroxide -3.0% w/w	Risk Phrases
Characterisation:	(max)/ 3% Orthophosphoric acid, silver 0.016g/l	
CAS Number Identification	Hydrogen Peroxide 007722-84-1 Phosphoric Acid 007664 -38 - 2 water 7732-18-5	R8,R5,R20/22,R35
EINECS	31-765-0 231-633-2 231-791-2	

3. Hazards Identification

Danger Identification	Corrosive causes severe irritation and burns to every area of contact . Harmful if swallowed or inhaled
Risk Phrases	Corrosive to eyes, respiratory system ,skin
Skin contact	Redness ,pain
Eye contact	Redness, pain
After swallowing	Burning sensation ,will cause burns and irritation of mouth
Inhalation	Avoid creating mist as mist will induce coughing and perhaps throat and chest soreness

4. First Aid Action

After skin contact	Remove contaminated clothing and shoes; wash affected areas for 15 minutes. Call doctor immediately. Wash clothing before reuse
After eye contact	Immediately flush eyes with gentle but large stream of water for a minimum of 15 minutes, lifting and lowering the eyelids occasionally. Call a Doctor
Inhalation	Remove to fresh air. If not breathing give artificial respiration Call doctor immediately
After Swallowing	Do not induce vomiting, rinse mouth and give water to drink Never give anything by mouth to an unconscious person. Severe exposure can lead to shock . Call Doctor

5. Action for Fire Prevention

Flammable class	Non Combustible
Suitable liquid	Powder extinguisher, water jet. Chemical will not burn, but will support combustion
Special protective clothing	In the event of a fire ,wear full protective clothing and NIOSH approved self contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
Explosion	Not considered an explosion hazard

6. Action During Unintentional Release

Personnel related Safety Requirements	Wear appropriate personal protection
Environmental Safety Requirements	Ventilate area of leak or spill. Wear appropriate personal protection as specified in Section 8 Contain and recover liquid if possible. Neutralise with alkaline material then absorb with an inert material (dry sand or earth) . Do not flush to sewer.
Procedure for cleaning /absorption	Absorb with sand, sawdust or other neutralising Absorbent material Do not flush to sewer.

7. Application and Storage

Application:

Instructions for safe handling	Keep the container tightly closed, protect from freezing and protect containers from physical damage. Never place product in anything other than plastic containers. After use of product wash out container carefully and do not reuse Always dilute by adding product to water
Instructions for fire and explosion prevention	No Special Requirements
Requirements for storage space and container	Store in cool well ventilated place

8. Exposure limitation and personal protective outfit

NOTE: We advise a minimum of eye protection and gloves as good practice when handling any chemicals

Protection for skin	Wear impervious protective clothing including boots - lab coat or coveralls as appropriate. .
Protection for hands	gloves
Protection for eyes	Chemical safety goggles or full face shield if splashing is possible - ensure that there is an eye wash fountain or running water close by
Airborne Exposure limits	Permissible exposure limit (PEL) is 1mg/m ³ (TWA) -ACGIH Threshold Limit Value (TLV):1 mg/m ³ (TWA), 3 mg/m ³ (STEL)
Ventilation System	A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, <i>Industrial Ventilation, A Manual of Recommended Practices</i> , most recent edition, for details.
Personal Respirators (NIOSH Approved):	If the exposure limit is exceeded, a full facepiece respirator with high efficiency dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

9. Physical and Chemical Properties

State	Liquid
Colour	Colourless
Aroma	Slight acid smell
Melting Point	<10 °C
Boiling Point	158° C

The chemical does not have a flash point. The material will not explode but will support combustion

Density at 20° C 1.05 g/ cm³

pH of SafeSolDD1 is 0.6 and after mixing with water as recommended the pH is 1.7

10. Stability and Reactivity

Stability	Stable under ordinary conditions of use and storage
Hazardous Decomposition Products	Phosphorous oxides may form if heated to decomposition
Hazardous Polymerisation	Will not occur
Incompatibilities	Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Can react violently with sodium tetrahydroborate. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, ketones, organophosphates, epoxides, explosives, combustible materials, unsaturated halides, and organic peroxides. Phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. It also forms toxic fumes with cyanides, sulfide, fluorides, organic peroxides, and halogenated organics. Mixtures with nitromethane are explosive

Additional Information

The product is stabilised to reduce risk of decomposition due to contamination.

11. Toxicological Information

Components	Type	Value	Species
LC ₅₀ (rat 4h)	1350 mg/ kg body weight investigated as a mutagen		

Product is non carcinogenic

Environmental Fate:

When released into the soil, this material may leach into groundwater. When released to water, acidity may be readily reduced by natural water hardness minerals. The phosphate, however, may persist indefinitely.

Environmental Toxicity:

No information found.

12. Ecological Information

Environmental Fate:

When released into the soil, this material may leach into groundwater. When released to water, acidity may be readily reduced by natural water hardness minerals. The phosphate, however, may persist indefinitely.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility.

Chemical should never be disposed of directly to sewer. Containers should be thoroughly rinsed prior to disposal

14. Transport

1. Transport Information

2. Domestic (Land, D.O.T.)

Proper Shipping Name: Phosphoric Acid Solution
Hazard Class: 8
UN/NA: UN1805
Packing Group: III
Information reported for product/size: 465LB

International (Water, I.M.O.)

Proper Shipping Name: Phosphoric Acid Solution
Hazard Class: 8
UN/NA: UN1805
Packing Group: III
Information reported for product/size: 465LB

3. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Phosphoric Acid (7664-38-2)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
 Reactivity: No (Mixture / Liquid)

Identification of Danger Hazardous

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0

Label Hazard Warning:

DANGER! CORROSIVE. CAUSES SEVERE IRRITATION AND BURNS TO EVERY AREA OF CONTACT.
 HARMFUL IF SWALLOWED OR INHALED.

Label Precautions:

Do not get in eyes, on skin, or on clothing.
 Keep container closed.
 Use only with adequate ventilation.
 Do not breathe vapour or mist.
 Wash thoroughly after handling.

Label First Aid:

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases call a physician immediately.

Product Use:

Showerhead cleaning Reagent.

3. Additional Information:

Text of R phrases in Section 2

R5 Heating may cause an explosion

R20/22 Harmful by inhalation and Ingestion

R8 Contact with combustible Material may cause a fire

R35 Causes severe burns

This MSDS was prepared by Robert Wilson B.Sc. M.W.M.Soc. in strict accordance with the information supplied by the manufacturers of the individual products. The contents and format are in accordance with EEC Commission Directive 2001/58/EC

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