Safety Data Sheet (SDS)

OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Printing date 11/25/2013 *Reviewed on 11/25/2013*

* 1 Identification

· ***Product identifier***

· ***Trade name: OXYCOM AG***
· ***Product description*** Fertilizing agent

· ***Details of the supplier of the safety data sheet***
· ***Manufacturer/Supplier:***
Redox Chemicals LLC
130 South 100 West
PO Box 129
Burley, ID 83318
Phone: 208-678-2610
Fax: 208-677-3609
· ***Emergency telephone number:*** 208-431-2314

* 2 Hazard(s) identification

· ***Classification of the substance or mixture***


GHS03 Flame over circle

Ox. Liq. 2 H272 May intensify fire; oxidizer.


GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.


GHS07

Acute Tox. 4 H302 Harmful if swallowed.

· ***Label elements***
· ***GHS label elements***
The product is classified and labeled according to the Globally Harmonized System (GHS).
· ***Hazard pictograms***


GHS03 GHS05 GHS07

· ***Signal word*** Danger

· ***Hazard-determining components of labeling:***
hydrogen peroxide solution
peracetic acid
· ***Hazard statements***
H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

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· ***Precautionary statements***

P221	Take any precaution to avoid mixing with combustibles.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P220	Keep/Store away from clothing/combustible materials.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	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.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***Classification system:*** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· ***NFPA ratings (scale 0 - 4)***

Health = 4
Fire = 3
Reactivity = 1

The substance possesses oxidizing properties.

· ***HMIS-ratings (scale 0 - 4)***

Health = 4
Fire = 3
Reactivity = 1

· ***Other hazards***

· ***Results of PBT and vPvB assessment***

· ***PBT:*** Not applicable.

· ***vPvB:*** Not applicable.

3 Composition/information on ingredients

7732-18-5	water, distilled, conductivity or of similar purity	60-90%

· ***Chemical characterization: Mixtures***

· ***Description:*** Mixture of the substances listed below with nonhazardous additions.

· ***Dangerous components:***

7722-84-1	hydrogen peroxide solution Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H332	15-35%

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79-21-0	peracetic acid Flam. Liq. 3, H226; Org. Perox. CD, H242; Skin Corr. 1A, H314; Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	2-12%
7320-34-5	tetrapotassium pyrophosphate	2-12%

4 First-aid measures

· ***Description of first aid measures***
· ***General information:***
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· ***After inhalation:***
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness, place patient securely in side position for transportation.
· ***After skin contact:*** Immediately wash with water and soap and rinse thoroughly.
· ***After eye contact:*** Rinse opened eye for several minutes under running water. Then consult a doctor.
· ***After swallowing:***
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
· ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.
· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:*** Use fire fighting measures that suit the environment.
· ***Special hazards arising from the substance or mixture*** No further relevant information available.
· ***Advice for firefighters***
· ***Protective equipment:*** Mouth respiratory protective device.

6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures***
Wear protective equipment. Keep unprotected persons away.
· ***Environmental precautions:*** No special measures required.
· ***Methods and material for containment and cleaning up:***
Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· ***Precautions for safe handling***
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

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· ***Information about protection against explosions and fires:*** Protect from heat.

· ***Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** No special requirements.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
· ***Specific end use(s)*** No further relevant information available.

8 Exposure controls/personal protection

· ***Additional information about design of technical systems:*** No further data; see section 7.

· ***Control parameters***

· ***Components with limit values that require monitoring at the workplace:***	
7722-84-1 hydrogen peroxide solution	
PEL	Long-term value: 1.4 mg/m³, 1 ppm
REL	Long-term value: 1.4 mg/m³, 1 ppm
TLV	Long-term value: 1.4 mg/m³, 1 ppm
79-21-0 peracetic acid	
TLV	Short-term value: NIC-1.24* mg/m³, NIC-0.4* ppm NIC-A4;*inhalable fraction + vapor

· ***Additional information:*** The lists that were valid during the creation were used as basis.

· ***Exposure controls***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· ***Breathing equipment:***
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.
· ***Protection of hands:***

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Select glove material based on penetration times, rates of diffusion and degradation.
· ***Material of gloves***
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· **Penetration time of glove material**
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.
· **Eye protection:** Tightly sealed goggles

* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Liquid
Color:	Clear
· **Odor:**	Pungent
· **Odour threshold:**	Not determined.
· **pH-value @ 20 °C (68 °F):**	<1
· **Change in condition**	
Melting point/Melting range:	--
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	116 °C (241 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	
Decomposition temperature:	55 °C (131 °F) (SADT)
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Not determined.
· **Explosion limits:**	
Lower:	0.0 Vol %
Upper:	0.0 Vol %
· **Vapor pressure @ 20 °C (68 °F):**	23 hPa (17 mm Hg)
· **Density @ 20 °C (68 °F):**	1.1-1.12 g/cm³ (9.18-9.346 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	0.0 %
Water:	65.0 %
VOC content:	35.0 %
· **Other information**	No further relevant information available.

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* 10 Stability and reactivity

· ***Reactivity*** No further relevant information available.
· ***Chemical stability*** Product is stable under normal conditions.
· ***Thermal decomposition / conditions to be avoided:*** No decomposition if used according to specifications.
· ***Possibility of hazardous reactions*** No dangerous reactions known.
· ***Conditions to avoid*** No further relevant information available.
· ***Incompatible materials:*** No further relevant information available.
· ***Hazardous decomposition products:*** No dangerous decomposition products known.

11 Toxicological information

· ***Information on toxicological effects***
· ***Acute toxicity:***
· ***Primary irritant effect:***
· ***on the skin:*** Strong caustic effect on skin and mucous membranes.
· ***on the eye:*** Corrosive effect.
· ***Sensitization:*** No sensitizing effects known.
· ***Additional toxicological information:***
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Corrosive
Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· ***Carcinogenic categories***

· ***IARC (International Agency for Research on Cancer)***		
7722-84-1	hydrogen peroxide solution	3

· ***NTP (National Toxicology Program)***
None of the ingredients is listed.

12 Ecological information

· ***Toxicity***
· ***Aquatic toxicity:*** No further relevant information available.
· ***Persistence and degradability*** No further relevant information available.
· ***Bioaccumulative potential*** No further relevant information available.
· ***Mobility in soil*** No further relevant information available.
· ***Additional ecological information:***
· ***General notes:***
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.
· ***Other adverse effects*** No further relevant information available.

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13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

* 14 Transport information

· **UN-Number**
· **DOT, ADR, IMDG, IATA** UN3149
· **UN proper shipping name**
· **DOT** Hydrogen peroxide and peroxyacetic acid mixtures, stabilized
· **ADR** UN3149 Hydrogen peroxide and peroxyacetic acid mixtures, stabilized
· **IMDG, IATA** HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

· **Transport hazard class(es)**

· **DOT**

· **Class** 5.1 Oxidising substances.
· **Label** 5.1

· **ADR**

· **Class** 5.1 Oxidizing substances
· **Label** 5.1

· **IMDG, IATA**

· **Class** 5.1 Oxidising substances.
· **Label** 5.1
· **Packing group**
· **DOT, ADR, IMDG, IATA** II
· **Environmental hazards:**
· **Marine pollutant:** No
· **Special precautions for user** Warning: Oxidizing substances
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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· **UN "Model Regulation":** UN3149, Hydrogen peroxide and peroxyacetic acid mixtures, stabilized, 5.1, II

* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Sara**

· **Section 355 (extremely hazardous substances):**

7722-84-1	hydrogen peroxide solution
79-21-0	peracetic acid

· **Section 313 (Specific toxic chemical listings):**

79-21-0	peracetic acid

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

7722-84-1	hydrogen peroxide solution	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
Corrosive to eyes

· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS03 GHS05 GHS07

· **Signal word** Danger

· **Hazard-determining components of labeling:**
hydrogen peroxide solution
peracetic acid

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· ***Hazard statements***
H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

· ***Precautionary statements***

P221	Take any precaution to avoid mixing with combustibles.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P220	Keep/Store away from clothing/combustible materials.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	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.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***National regulations:***

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· ***State Right to Know***

7722-84-1	hydrogen peroxide solution Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H332	15-35%
79-21-0	peracetic acid Flam. Liq. 3, H226; Org. Perox. CD, H242; Skin Corr. 1A, H314; Aquatic Acute 1, H400; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	2-12%
7320-34-5	tetrapotassium pyrophosphate	2-12%
7732-18-5	water, distilled, conductivity or of similar purity	60-90%

None of the ingredients is listed.

· ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Date of preparation / last revision*** 11/25/2013 / 2

· ***Abbreviations and acronyms:***
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)

· **** Data compared to the previous version altered.***

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