

**OXY - TEC****SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. Product identifier	OXY - Tec
1.2. Relevant identified uses of the substance or mixture and uses advised against	surface and equipment disinfectant concentrate
1.3. Details of the supplier of the safety data sheet	
Manufacturer	Lir Analytical Ltd
Address	Rathcronan, Granard, Co Longford.
Phone Number1.	+353(0)43 6660703.
E-mail	info@liranalytical.com
1.4. Emergency telephone number	085-7211839(24 hours)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification (1999/45/EEC) Corrosive, Oxidising

2.2. Label elements

Symbol (s) C, O

Risk phrases R8 Contact with combustible material may cause fire.
R34 Causes burns.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

Safety phrases S2 Keep out of the reach of children.
S17 Keep away from combustible material.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Chemical Characterisation: Peracetic acid

Component	EINECS No:	CAS No:	% Inclusion	Classification	Concentration limits (Annex I 67/548/EEC)
Peracetic acid	201-186-8	79-21-0	≤5.50	R10 C; R35, O; R7,Xn R20/21/22 N; R50	Xn; R20/21/22: C ≥10 % C; R35: C ≥10 % C; R34: 5 % ≤C < 10 % Xi; R36/37/38: 1 % ≤C < 5 %
Acetic Acid	200-580-7	64-19-7	ca. 10	R10 C; R35	C; R35: C ≥90 % C; R34: 25 % ≤C < 90 % Xi; R36/38: 10 % ≤C < 25 %
Hydrogen Peroxide	231-765-0	7722-84-1	ca. 20	R5 O; R8, C; R35,	Xn; R20: C ≥50 % Xn; R22: C ≥8 % C; R35: C ≥70 % C; R34: 50 % ≤C < 70 % Xi; R37/38: 35 % ≤C < 50 % Xi; R41: 8 % ≤C < 50 % Xi; R36: 5 % ≤C < 8 % Footnote: O; R8: C ≥50 % R5: C ≥70 %

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SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Move out of dangerous area. Take care of your own personal safety. Keep out unprotected persons.
Eyes	Speed is essential. With eye held open, thoroughly rinse with plenty of water for at least 15 minutes. Protect unharmed eye. Continue rinsing process with saline solution. Call ambulance (Cue- caustic burn of the eye). Immediate treatment in ophthalmic hospital / ophthalmologist. Continue rinsing eye until arrival at ophthalmic hospital.
Skin	Immediately flood the skin with large quantities of water, preferably under a shower. Continue washing for at least 10 minutes. In case of discomfort: Supply with medical care. Remove contaminated clothing immediately as washing proceeds.
Ingestion	If possible prop up patient to allow release of gases from the stomach. Danger of penetration of the lungs (danger to breathing) when swallowed or vomited, due to gas evolution and foam formation. Do not induce vomiting. Seek urgent medical advice. Only if patient fully conscious - Rinse mouth with water and then drink copious amounts of water, keep the patient warm and at rest. Notify ambulance immediately (cue- acid burn)
Inhalation	Take affected persons out into the fresh air. Possible discomfort: Irritates skin and mucous linings of the eyes and respiratory tract. Cough. If breathing difficulties occur (e.g. severe continual coughing): Keep the patient half sitting with upper body raised, keep warm and in a quiet place. Call a physician immediately. If breathing affected give artificial respiration and seek immediate medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Eyes	Severe irritation, watering, redness and swelling of the eyelids. Risk of burns. Risk of serious or permanent eye lesions.
Skin	Painful irritation, redness and swelling of the skin. Material will cause chemical burns.
Ingestion	Low probability of risk (stinging odour). Paleness and cyanosis of the face. Severe irritation, burns and perforation of gastrointestinal tract accompanied by shock. Nausea and vomiting (bloody). Risk of throat oedema and suffocation. Cough and difficulty breathing. Excessive fluid in the mouth and nose, with risk of suffocation. Gases may build up in the stomach. Risk of chemical pneumonitis and pulmonary oedema.
Inhalation	Nose and throat irritation. Cough and difficulty breathing. In case of repeated or prolonged exposure: risk of sore throat, nosebleeds, and chronic bronchitis.

4.3. Indication of any immediate medical attention and special treatment needed

Following inhalation: Formation of a toxic lung oedema is possible if product continues to be inhaled despite acute irritative effect (e.g. if it is not possible to leave the danger area). Prophylaxis of a toxic lung oedema with inhalative steroids (Dexamethasone aerosol dosing spray, for example auxilosone)

If the substance has been swallowed

Aspiration hazard. Risk of gaseous embolisms. In case of excessive strain on the stomach due to gas evolution, insert siphon tube. Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, suck away left over substance. Do not administer activated charcoal, since risk of release of large amounts of gas from hydrogen peroxide.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Water spray, foam, dry powder or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Contact with flammable substances may cause inflammation. Involved in fire it may decompose yielding oxygen. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Release of oxygen may support combustion. In case of fire, remove the endangered containers and bring to a safe place, if this can be done without risk. Keep away from heat.

5.3. Advice for firefighters

Evacuate personnel to safe areas. Keep out unprotected persons. Keep unauthorised persons away. Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure that there are sufficient retaining facilities for water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities. Fire residues should be disposed of in accordance with the regulations. To cool, spray closed containers with water spray jet. In case of fire, remove the endangered containers and bring to a safe place, if this can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing, approved respirator, gloves, goggles etc – see section 8. Evacuate personnel to safe areas. Keep out unprotected persons. Keep unauthorised persons away.

6.2. Environmental precautions

Observe regulations on preventions of water pollution (collect, dam up, cover up) Prevent the material from entering drains or watercourses.

6.3. Methods and material for containment and cleaning up

Large spillages should be collected for disposal. Collect in suitable containers. Keep away from incompatible substances. Clean contaminated surface thoroughly – recommended cleaning agent – water. Dispose of absorbed material in accordance with the regulations. Never return spilled product into its original containers for re-use.

6.4. Reference to other sections

Protective clothing - section 8. Disposal – Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Wear suitable protective clothing. Avoid contact with skin, eyes and clothing. Do not inhale vapour, aerosols, and sprays. When using, avoid spray mists. Operate in a well ventilated place. For personal protection see Section 8. Handle in accordance with good industrial hygiene and safety practice. Immediately change moistened or saturated work clothes. Immediately rinse contaminated or saturated clothing with water. Never return spilled product into its original containers for re-use. Avoid impurities. Transport and store container in upright position only. Do not empty container by means of pressure.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from incompatible substances. Keep upright only in the original container. Keep container closed and in a clean, cool, and well ventilated place away from heat, flammable materials and intense light. Avoid residues of the product on the containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s) The identified uses for this product are detailed in Section 1.2.

**OXY - TEC****SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Occupational Exposure Standards	EH40 WEL Short Term	EH40 WEL TWA
Hydrogen peroxide	2.8 mg/m ³	1.4 mg/m ³
Acetic Acid	-	25 mg/m ³

8.2. Exposure controls

Eye / face protection	Chemical goggles or face shield EN166
Hand protection	Chemical resistant gloves. Natural rubber (NR)/ Polychloroprene (PCP).(EN 374).
Other	PVC or other impermeable suit (suitable materials – PVC, neoprene, nitrile rubber (NBR), rubber). PVC or rubber boots.
Respiratory protection	Ensure there is good room ventilation. Do not inhale vapour, aerosols, and mist. If workplace exposure limit is exceeded apply respiratory protective equipment. In case of larger quantities: if open handling is unavoidable, wear respiratory protection. Respirator with type ABEK-P2 combination filter. (e.g. FFP2 EN149:2001 or equivalent)Note time limit for wearing respiratory protective equipment

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Clear / colourless Liquid	Vapour pressure	CA. 27hPa (20°C)
Odour	Pungent / vinegar like / stinging	Vapour density	No data available
Odour threshold	No data available	Relative density	Ca. 1.12 (20°C)
pH	2.00 – 3.00	Solubility (ies)	Water soluble
Melting /freezing point	No data available	Partition coefficient: n-octanol/ water	No data available
Boiling point/boiling range	>60°C	Auto-ignition temperature	No data available
Flash point	> 96°C(DIN51 584)	Decomposition temperature	No data available
Evaporation rate	No data available	Viscosity	None
Flammability (solid, gas)	Not spontaneously flammable	Explosive properties	No explosive components
Upper/lower flammability or explosive limits	No explosive components	Oxidising properties	Oxidising (according to EC directive 67/548/EEC)

9.2. Other information

No Data

SECTION 10: Stability and reactivity**10.1. Reactivity**

Danger of decomposition if exposed to heat. When coming in contact with the product, impurities, decomposition catalysts, metallic salts, alkalis, reducing agents may lead to self-accelerated, exothermic decomposition and the formation of oxygen. Risk of overpressure and burst due to decomposition in confined spaces and pipes. Release of oxygen may support combustion.

10.2. Chemical stability

No data supplied

10.3. Possibility of hazardous reactions

No data supplied

10.4. Conditions to avoid

Sun rays, heat, heat effect. Mixtures with easily flammable substances may produce explosive reactions.

10.5. Incompatible materials



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Exothermic reactions with release of oxygen in contact with certain metals (copper, iron). Avoid reducing agents, flammable materials, acids, bases, organic materials, and salts of metals. Organic solvents (danger of explosion)

10.6. Hazardous decomposition products

Steam, oxygen. Release of oxygen may support combustion. Stable under recommended storage conditions. Product is supplied in stabilised form.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50, Oral Rat (female) 1859 mg/kg
Irritation	No data supplied
Corrosivity	Corrosive: Rabbit 0.75h OECD 404
Sensitisation	not a sensitizer - Buehler test – guinea pig
Repeated dose toxicity	No data supplied
Carcinogenicity	No components are classified as Carcinogenic
Mutagenicity	No components are classified as Mutagenic
Toxicity for reproduction	No components are classified as Toxic for reproduction

SECTION 12: Ecological information

12.1. Toxicity

LC50 FISH 96h 1-2 mg/l, EC50 48h Daphnia 0.5 – 1.1 mg/l

12.2. Persistence and degradability

Readily biodegradable

12.3. Bioaccumulative potential

Product is not expected to bioaccumulate.

12.4. Mobility in soil

No data supplied

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

No data supplied

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal Dispose of in accordance with all applicable local and national regulations.

Container disposal Contaminated, empty containers must be disposed of as chemical waste. Residual chemical should be disposed of by incineration or by other modes of disposal in compliance with local legislation

SECTION 14: Transport information

14.1. UN number	3149
14.2. UN proper shipping name	Hydrogen Peroxide and Peroxyacetic Acid Mixture, Stabilised
14.3. Transport hazard class(es)	5.1 ,8
14.4. Packing group	II
14.5. Environmental hazards	Not Marine Pollutant



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14.6. Special precautions for user Not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The Chemical (Hazard Information for Packaging and Supply) Regulations 2009 (SI 2009:716) and associated documents.

COMMISSION REGULATION (EU) No 453/2010 amending Regulation(EC) No 1907/2006 of the European Parliament and of the

Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

HSE Guidance Note EH40 2007

The European Agreement Concerning the Carriage of Dangerous Goods by Road (ADR), 2009 Edition.

The International Maritime Dangerous Goods Code, (IMDG) 2010 Edition.

The International Air Transport Association Dangerous Goods Regulations, (IATA), 2012 Edition.

Safety Data Sheets provided by suppliers of component substances.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

Note: Sections in italics indicate significant changes from the previous version

Full text of R phrases from section 3.

R5 Heating may cause an explosion

R7 May cause fire.

R8 Contact with combustible material may cause fire.

R10 Flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns

R35 Causes severe burns.

R50 Very toxic to aquatic organisms.



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Training advice.

Those who are employed in the use of this product must be given training which highlights the need to handle and use it only in the recommended manner and at all times make use of the prescribed personal protective equipment. Recommended restrictions on use. This product should be stored and handled in accordance with guidance given above and used only in the recommended manner and in conformity with any legal requirements

This safety data sheet has been supplied in accordance with the requirements of Article 31 of Regulation EC No 1907/2006 (the REACH regulation) and the information contained herein is displayed in the order prescribed in Annex II to that regulation, as amended 2010. Its purpose is to facilitate the carrying out of a risk assessment.

Employers are reminded of their duty to carry out such an assessment and subsequently to provide an appropriate working environment, to make available to those who are required to use this product all necessary personal protective equipment and to ensure that such equipment is used.

The safety data sheet is additional to the technical data sheet but does not replace it. The information given herein is to the best of our knowledge correct and given in good faith. It relates to the product in the state in which it is delivered. This product is for the uses specified and should only be used for those purposes. Any other use may involve risks. The user will take sole responsibility for the precautions relating to the use of the product. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Lir Analytical Ltd. Registered Office: Rathcronan, Granard, Co Longford.
Registration Number: Ireland 528908 Place of Registration: Ireland.