

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Luperox® 224, 2,4-Pentanedione peroxide solution

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

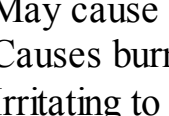
Classification according to EU Directives 67/548/EEC or 1999/45/EC

May cause fire. May cause harm to the unborn child. Causes burns. Irritating to respiratory system.

2.2 Label elements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrases(s)

R61 May cause harm to the unborn child.

R7 May cause fire.

R34 Causes burns.

R37 Irritating to respiratory system.

S-phrases(s)

S53 Avoid exposure - obtain special instructions before use.

S 3/7 Keep container tightly closed in a cool place.

S14 Keep away from easily oxidizable materials.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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 where possible).

Restricted to professional users.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Synonyms : 2,4-Pentanedione peroxide

Formula : C10H14O6

Component	Classification	Concentration
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2,4-Pentanedione, peroxide

CAS-No.	37187-22-7	Skin Corr. 1B; H314	34 %
EC-No.	253-384-9	O, C, R 7 - R34	

4-Hydroxy-4-methylpentan-2-one

CAS-No.	123-42-2	Flam. Liq. 3; Acute Tox. 3; Eye 31 %	
EC-No.	204-626-7	Dam. 1; H226, H318, H331	
	-	Xi, R36	

N-methyl-2-pyrrolidone

CAS-No.	872-50-4	Repr. 1B; Eye Irrit. 2; STOT	14 %
EC-No.	212-828-1	SE 3; Skin Irrit. 2; H360D,	
	-	H319, H335, H315	
Registration number	01-2119472430-46-XXXX	T, Repr Cat.2, R61 -	
		R36/37/38	

Hydrogen peroxide

CAS-No.	7722-84-1	Ox. Liq. 1; Acute Tox. 4; Skin	1%
EC-No.	231-765-0	Corr. 1A; H271, H302, H314,	
	-	H332	
		<u>O, C, R 5 - R 8 - R20/22 - R35</u>	

Diethylene glycol

CAS-No.	111-46-6	Acute Tox. 4; H302	8%
EC-No.	203-872-2	Xn, R22	
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Acetylacetone

CAS-No.	123-54-6	Flam. Liq. 3; Acute Tox. 4;	2%
EC-No.	204-634-0	H226, H314	
	-	Xn, R10 - R22	

Acetic acid

CAS-No.	64-19-7	Flam. Liq. 3; Skin Corr. 1A;	1%
EC-No.	200-580-7	H226, H314	
	-	C, R10 - R35	

Water

CAS-No.	7732-18-5	-	9%
EC-No.	231-791-2		

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Dizziness, Cough, chest pain, Difficulty in breathing, Convulsions, Incoordination., Abdominal pain, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., burning sensation

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 °C

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available

f) Initial boiling point and boiling range	68 °C
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g) Flash point	101,11 °C - closed cup
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h) Evaporation rate	no data available
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i) Flammability (solid, gas) no data available	
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j) Upper/lower flammability or explosive limits	no data available
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k) Vapour pressure	no data available
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l) Vapour density	no data available
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m) Relative density	1,068 g/cm3 at 25 °C
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n) Water solubility	no data available
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o) Partition coefficient: n-octanol/water	no data available
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p) Autoignition temperature	no data available
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q) Decomposition temperature	no data available
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r) Viscosity	no data available
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s) Explosive properties	no data available
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t) Oxidizing properties	no data available
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9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Zinc, Strong bases, Oxidizing agents, Powdered metals, Strong oxidizing agents, Metals, Iron, Copper, Amines, Strong acids, Reducing agents, Heavy metals, Organic materials, Alcohols, Peroxides, permanganates, e.g. potassium permanganate, Nickel, Brass, Iron and iron salts., Strong reducing agents, Soluble carbonates and phosphates, Hydroxides

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrogen peroxide)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
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Ingestion	May be harmful if swallowed.
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Skin	May be harmful if absorbed through skin. May cause skin irritation.
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Eyes	May cause eye irritation.
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Signs and Symptoms of Exposure

Dizziness, Cough, chest pain, Difficulty in breathing, Convulsions, Incoordination., Abdominal pain, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., burning sensation

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3105	IMDG: 3105	IATA: 3105
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14.2 UN proper shipping name

ADR/RID: ORGANIC PEROXIDE TYPE D, LIQUID (ACETYL ACETONE PEROXIDE)

IMDG: ORGANIC PEROXIDE TYPE D, LIQUID (ACETYL ACETONE PEROXIDE)

IATA: Organic peroxide type D, liquid (Acetyl acetone peroxide)

Special Provisions : "Keep away from heat" la bel required.

14.3 Transport hazard class(es)

ADR/RID: 5.2	IMDG: 5.2	IATA: 5.2 (HEAT)
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14.4 Packaging group

ADR/RID: -	IMDG: -	IATA: -
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14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA: no
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14.6 Special precautions for user

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
Ox. Liq.	Oxidising liquids
Repr.	Reproductive toxicity
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure
C	Corrosive
O	Oxidising
R5	Heating may cause an explosion.
R7	May cause fire.
R8	Contact with combustible material may cause fire.
R10	Flammable.
R20/22	Harmful by inhalation and if swallowed.
T	Toxic
R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
Xi	Irritant
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R61	May cause harm to the unborn child.
Repr.Cat.2	Toxic to Reproduction Category 2
Xn	Harmful

Further information

For R&D use only. Not for drug, household or other uses.

WARRANTY:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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