

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: 10624448, 10624450, 10736511 - FIX-R Roof Standard Catalyst 1Kg, 5Kg & 25Kg

Other means of identification:

Not relevant

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

Relevant uses (Professional users): Catalyst

For Professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

FIX-R

Harding Way

PE27 3YJ St Ives - Cambridgeshire - United Kingdom

Phone: +44 (0) 1480 466 777

sigassured@sigplc.com

www.fix-r.co.uk

1.4 Emergency telephone number: +44 (0) 1274 696979 (Monday - Friday 8am - 5pm GMT)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).

Acute Tox. 4: Acute toxicity, Category 4, H302+H332

Eye Dam. 1: Serious eye damage, Category 1, H318

Org. Perox. D: Organic peroxides, Category D, H242

Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Danger



Hazard statements:

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.

Org. Perox. D: H242 - Heating may cause a fire.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Precautionary statements:

SECTION 2: HAZARDS IDENTIFICATION (continued)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P234: Keep only in original container.
 P240: Ground/bond container and receiving equipment.
 P260: Do not breathe vapours
 P264: Wash thoroughly after handling.
 P280: Wear protective gloves/face protection/protective clothing/protective footwear.
 P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 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/doctor.
 P321: Specific treatment is urgently needed (go to see a doctor with the Safety data sheet for this product).
 P363: Wash contaminated clothing before reuse.
 P370+P378: In case of fire: Use Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC) to extinguish.
 P403: Store in a well-ventilated place.
 P405: Store locked up.
 P410: Protect from sunlight.
 P411: Store at temperatures no higher than those specified by the manufacturer.
 P420: Store away from other materials.
 P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.

2.3 Other hazards:

Product does not meet PBT/vPvB criteria
 During use trace quantities of decomposition products may occur. See Section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substance:



Not relevant

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 131-11-3 EC: 205-011-6 REACH: 01-2119437229-36-XXXX	Dimethyl Phthalate	50 - <75 %
CAS: 1338-23-4 EC: 700-954-4 REACH: 01-21194514691-43-XXXX	Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Org. Perox. D: H242; Skin Corr. 1B: H314 - Danger 	30 - <40 %
CAS: 78-93-3 EC: 201-159-0 REACH: 01-2119457290-43-XXXX	Butanone Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger 	1 - <5 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4	% (w/w) >=5: Org. Perox. D - H242

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4 EC: 700-954-4	LD50 oral	1017 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation vapour	11 mg/L *	

- CONTINUED ON NEXT PAGE -

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Acute toxicity	Genus
----------------	----------------	-------

* Equivalent ATE value of the substance applicable to the exposure route of the product. For the ATE value associated with the exposure route of the substance, see section 11.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and also risk damage to the respiratory system through inhalation. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

- CONTINUED ON NEXT PAGE -

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

HEATING MAY CAUSE A FIRE. Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

AVOID ANY KIND OF HEATING. Devices and systems must comply with the essential safety and health requirements and, with the minimum requirements for improving the health and safety protection of workers. Consult section 10 for conditions and materials that should be avoided. KEEP ONLY IN ORIGINAL CONTAINER.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:

Storage Temperatures: Below 25°C

Shelf Life: 6 Months

7.3 Specific end use(s):

See Section 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Substances whose occupational exposure limits have to be assessed in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
	WEL (8h)	WEL (15 min)	WEL (8h)
Butanone CAS: 78-93-3	200 ppm	300 ppm	600 mg/m ³
			899 mg/m ³
Dimethyl Phthalate CAS: 131-11-3	5 mg/m ³		10 mg/m ³
propionic acid CAS: 79-09-4	10 ppm	15 ppm	31 mg/m ³
			46 mg/m ³
Acetic acid CAS: 64-19-7	10 ppm	20 ppm	25 mg/m ³
			50 mg/m ³
Formic acid CAS: 64-18-6	5 ppm		9.6 mg/m ³
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxidibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4		0.2 ppm	1.5 mg/m ³

Biological limit values:

BIOLOGICAL MONITORING GUIDANCE VALUES (BMGVs) - EH40/2005

Identification	NULL	NULL	NULL
Butanone CAS: 78-93-3	5 mg/L	Butan-2-one in urine	Post shift

Substances with exposure limits not listed in Section 3.2 occur during use of the product.

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	135 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	66.1 mg/m ³	Not relevant
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxidibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4 EC: 700-954-4	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	3 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	5.288 mg/m ³	Not relevant
Butanone CAS: 78-93-3 EC: 201-159-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	1161 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	600 mg/m ³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	Oral	Not relevant	Not relevant	9.4 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	67.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	16.3 mg/m ³	Not relevant
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxidibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4 EC: 700-954-4	Oral	Not relevant	Not relevant	0.75 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	1.5 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1.125 mg/m ³	Not relevant
Butanone CAS: 78-93-3 EC: 201-159-0	Oral	Not relevant	Not relevant	31 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	412 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	106 mg/m ³	Not relevant

PNEC:

Identification				
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	STP	4 mg/L	Fresh water	0.192 mg/L
	Soil	3.16 mg/kg	Marine water	0.019 mg/L
	Intermittent	0.39 mg/L	Sediment (Fresh water)	1.3 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.13 mg/kg

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide CAS: 1338-23-4 EC: 700-954-4	STP	1.2 mg/L	Fresh water	0.006 mg/L
	Soil	0.014 mg/kg	Marine water	0.001 mg/L
	Intermittent	0.056 mg/L	Sediment (Fresh water)	0.088 mg/kg
	Oral	Not relevant	Sediment (Marine water)	0.009 mg/kg
Butanone CAS: 78-93-3 EC: 201-159-0	STP	709 mg/L	Fresh water	55.8 mg/L
	Soil	22.5 mg/kg	Marine water	55.8 mg/L
	Intermittent	55.8 mg/L	Sediment (Fresh water)	284.74 mg/kg
	Oral	1 g/kg	Sediment (Marine water)	284.7 mg/kg

8.2 Exposure controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection


If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands



Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Butyl, Breakthrough time: > 480 min, Thickness: 0.5 mm)	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection



Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk, with antistatic and heat resistant properties	Replace boots at any sign of deterioration.

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply):	3.3 % weight
V.O.C. density at 20 °C:	Not relevant

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not relevant *
Colour:	Colourless
Odour:	Not relevant *
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	Not relevant *
Vapour pressure at 20 °C:	Not relevant *
Vapour pressure at 50 °C:	Not relevant *
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	Not relevant *
Relative density at 20 °C:	1.18
Dynamic viscosity at 20 °C:	24 mPa·s
Kinematic viscosity at 20 °C:	20.34 mm ² /s
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Not relevant *
-----------------------------	----------------

9.2 Other information:

Information with regard to physical hazard classes:

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive properties:	Not relevant *
Oxidising properties:	H242 Heating may cause a fire.
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *
Other safety characteristics:	
Surface tension at 20 °C:	Not relevant *
Refraction index:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Heating may cause a fire or explosion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Avoid direct impact	Avoid alkalines, heavy metals, reducing agents, peroxide accelerating agents

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

- CONTINUED ON NEXT PAGE -

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.

- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

IARC: Not relevant

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Butanone CAS: 78-93-3 EC: 201-159-0	LD50 oral	4000 mg/kg	Rat
	LD50 dermal	6400 mg/kg	Rabbit
	LC50 inhalation vapour	23.5 mg/L (4 h)	Rat
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation vapour	>20 mg/L	
Reaction mass of butane-2,2-diyl dihydroperoxide and dioxidybutane-2,2-diyl dihydroperoxide CAS: 1338-23-4 EC: 700-954-4	LD50 oral	1017 mg/kg	Rat
	LD50 dermal	4000 mg/kg	Rabbit
	LC50 inhalation vapour	>20 mg/L	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

12.1 Toxicity:

Acute toxicity:

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
Dimethyl Phthalate CAS: 131-11-3	LC50	39 mg/L (96 h)	Pimephales promelas	Fish
	EC50	150 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	204 mg/L (72 h)	Scenedesmus subspicatus	Algae
Butanone CAS: 78-93-3	LC50	3220 mg/L (96 h)	Pimephales promelas	Fish
	EC50	5091 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	4300 mg/L (168 h)	Scenedesmus quadricauda	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
Dimethyl Phthalate CAS: 131-11-3	NOEC	11 mg/L	Oncorhynchus mykiss	Fish
	NOEC	9.6 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	BOD5	1.12 g O2/g	Concentration	100 mg/L
	COD	0.74 g O2/g	Period	28 days
	BOD5/COD	1.51	% Biodegradable	93 %
Butanone CAS: 78-93-3 EC: 201-159-0	BOD5	2.03 g O2/g	Concentration	Not relevant
	COD	2.31 g O2/g	Period	20 days
	BOD5/COD	0.88	% Biodegradable	89 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
Dimethyl Phthalate CAS: 131-11-3 EC: 205-011-6	BCF	57
	Pow Log	1.6
	Potential	Moderate
Butanone CAS: 78-93-3 EC: 201-159-0	BCF	3
	Pow Log	0.29
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Dimethyl Phthalate CAS: 131-11-3	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	4.044E-2 N/m (25 °C)	Moist soil	Not relevant
Butanone CAS: 78-93-3	Koc	30	Henry	5.77 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.396E-2 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals	Hazardous

Type of waste:

HP3 Flammable, HP6 Acute Toxicity, HP8 Corrosive

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -

SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:



- | | |
|---|---|
| 14.1 UN number: | UN3105 |
| 14.2 UN proper shipping name: | ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide) |
| 14.3 Transport hazard class(es): | 5.2 |
| Labels: | 5.2, 8 |
| 14.4 Packing group: | N/A |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Tunnel restriction code: | D |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 125 mL |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Not relevant |

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



- | | |
|---|---|
| 14.1 UN number: | UN3105 |
| 14.2 UN proper shipping name: | ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide) |
| 14.3 Transport hazard class(es): | 5.2 |
| Labels: | 5.2, 8 |
| 14.4 Packing group: | N/A |
| 14.5 Marine pollutant: | No |
| 14.6 Special precautions for user | |
| Special regulations: | 122, 274 |
| EmS Codes: | F-J, S-R |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | 125 mL |
| Segregation group: | SGG16 |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Not relevant |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:

- CONTINUED ON NEXT PAGE -

SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN3105
- 14.2 UN proper shipping name:** ORGANIC PEROXIDE TYPE D, LIQUID (Reaction mass of butane-2,2-diyl dihydroperoxide and dioxidybutane-2,2-diyl dihydroperoxide)
- 14.3 Transport hazard class(es):** 5.2
Labels: 5.2, 8
- 14.4 Packing group:** N/A
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
Physico-Chemical properties: see section 9
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirements	Upper-tier requirements
P6b	SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES	50	200

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H242: Heating may cause a fire.
H302+H332: Harmful if swallowed or if inhaled.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

- CONTINUED ON NEXT PAGE -

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Org. Perox. D: H242 - Heating may cause a fire.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Skin Corr. 1B: Calculation method
Eye Dam. 1: Calculation method
Acute Tox. 4: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -