SAFETY DATA SHEET

M-BOND 300 CATALYST

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

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Date of issue:10/01/2023
Date of First Issue: 11/10/2012
Version 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	M-Bond 300 Catalyst
Product code	Not applicable
Unique Formula Identifier (UFI)	Not applicable
Nanoform	The product does not contain nanoparticles.

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

Identified Use(s)	Adhesive
Uses advised against	Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification	VISHAY MEASUREMENTS GROUP GMBH Tatschenweg 1 74078 Heilbronn Deutschland
Telephone	+49 (0) 7131 39099-0
Fax	+49 (0) 7131 39099-229
E-mail (competent person)	mm.de@vpgsensors.com

1.4 Emergency telephone number

National Poisons Information Service (United Kingdom)	+44 (0) 3448 920111	24 hr. emergency phone number Healthcare Professionals ONLY
NHS 24	111	Members of Public
Emergency Phone No.	(00-1) 703-527-3887	CHEMTREC (24 hours)
Languages spoken	All official European languages.	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Org. Perox. D; H242
Acute Tox. 4; H302
Skin Corr. 1B; H314
Eye Dam. 1; H318
Acute Tox. 4; H332
Repr. 2; H361

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product name: M-Bond 300 Catalyst

Hazard Pictogram(s)

Signal Word(s): DANGER

Contains: Methyl ethyl ketone Peroxide; 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate; Methyl ethyl ketone; Hydrogen peroxide

Hazard Statement(s): H242: Heating may cause a fire.

	H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage. H332: Harmful if inhaled. H361: Suspected of damaging fertility or the unborn child.
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P234: Keep only in original packaging. P260: Do not breathe mist/vapours/spray. P264: Wash hands and exposed skin thoroughly after handling. P280: Wear protective gloves/eye protection/face protection. P370+P378: In case of fire: Use foam, water spray or fog to extinguish.
Supplemental information	None

2.3 Other hazards None Known

SECTION 3: Composition/information on ingredients

3.1 Substances - not applicable.

3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Methyl ethyl ketone Peroxide	> 30 - < 35	1338-23-4	215-661-2/ 700-954-4	Not yet assigned in the supply chain	Org. Perox. D; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Acute Tox. 4; H322
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	>10 - ≤20	6846-50-0	229-934-9	Not yet assigned in the supply chain	Repr. 2; H361 Aquatic Chronic 3; H412
Methyl ethyl ketone	>1.5 - < 2.5	78-93-3	201-159-0	Not yet assigned in the supply chain	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066
Hydrogen peroxide	>0.5 - < 1.5	7722-84-1	231-765-0	Not yet assigned in the supply chain	Ox. Liq. 1; H271 Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acute Tox. 4; H332 STOT SE 3; H335 Aquatic Chronic 3; H412

Specific concentration limit (SCL) & M-factor

Chemical identity of the substance	CAS No.	EC No.	Specific concentration limit (SCL)	M-factor
Hydrogen peroxide	7722-84-1	231-765-0	Ox Liq. 1; H271: C >= 70% Ox Liq. 2; H272: 50% =< C < 70% Skin Corr. 1A; H314: C >= 70% Skin Corr. 1B; H314: 50% =< C < 70% Skin Irrit. 2; H315: 35% =< C < 50% Eye Dam. 1; H318: 8% =< C < 50%	-

			Eye Irrit. 2; H319: 5% =< C < 8% STOT SE. 3; H335: C >= 35%	

Note: For full text of H phrases see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Self-protection of the first aider
Eyewash facilities should be stationed close to workplace where possible.

inhalation
Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Contaminated clothing should be laundered before reuse. Do not breathe vapour. Ensure adequate ventilation Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Do not use mouth-to-mouth resuscitation.

Skin contact
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

Eye contact
IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

Ingestion
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed
IF SWALLOWED: Rinse mouth. Make victim drink plenty of water. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless instructed to do so by medical personnel. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

4.3 Indication of any immediate medical attention and special treatment needed
May be harmful if swallowed. Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child.

Notes to a physician:
Treat symptomatically.
Treatment by an ophthalmologist due to possible caustic burn of the eyes may be required.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
As appropriate for surrounding fire. Extinguish preferably with waterspray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media
Do not use water jet. Direct water jet may spread the fire.

5.2 Special hazards arising from the substance or mixture
Heating may cause a fire or explosion. May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide and Acrid smoke May form explosive mixture with air particularly in enclosed spaces.

5.3 Advice for firefighters
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation Stop leak if safe to do so. In case of leakage, eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin, eyes or clothing. Avoid breathing vapours. Ensure suitable personal protection during removal of spillages. See Section: 8.

6.2 Environmental precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste. Ventilate the area and wash spill site after material pick-up is complete.

6.4 Reference to other sections

See Section: 8, 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure operatives are trained to minimise exposures. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all contact. Do not breathe vapour. Ensure adequate ventilation Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. May form explosive peroxides. Take precautionary measures against static discharges. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original packaging.Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep from direct sunlight.

storage temperature: Store at temperatures not exceeding (℃): 27℃. SADT 6 0℃.

Storage life: Stable under normal conditions

Incompatible materials: Keep away from: Aerosol, Flammable liquid, Oxidizing agents, Reducing agent, Acids, strong bases, metals (and their alloys), Sulphur products, Amines and Corrosive Substances. Avoid impurities (e.g. rust, dust, ash), risk of decomposition.

7.3 Specific end use(s)

See Section: 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Occupational exposure limits

United Kingdom

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Methyl ethyl ketone peroxides (MEKP)	1338-23-4	-	-	0.2	1.5	-
Ethyl methyl ketone	78-93-3	200	600	300	899	Sk, BMGV
Hydrogen peroxide	7722-84-1	1	1.4	2	2.8	-

Source: UK WEL: Workplace Exposure Limit (UK HSE EH40)

Notations:
Sk: Can be absorbed through skin.
BMGV: Biological monitoring guidance value

Ireland

SUBSTANCE	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
		ppm	mg/m³	ppm	mg/m³	
Methyl ethyl ketone peroxides (MEKP)	1338-23-4	-	-	0.2	1.5	-
Ethyl methyl ketone	78-93-3	200	600	300	900	Sk, IOELV
Hydrogen peroxide	7722-84-1	1	1.5	2	3	-

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 – 2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001 – 2019); Health and Safety Authority

Notations:
IOELV: Indicative Occupational Exposure Limit Value
Sk: Can be absorbed through skin.

8.1.2 Biological Limit Value

SUBSTANCE	CAS No.	Biological monitoring guidance value	Sampling Time
Ethyl methyl ketone	78-93-3	70 µmol butan-2-one/L in urine	Post shift

Source: Bmgv: Biological monitoring guidance value (UK HSE EH40)

8.1.3 PNECs and DNELs — Not established

8.2 Exposure controls

8.2.1 Appropriate engineering controls — Ensure operatives are trained to minimise exposures. Ensure adequate ventilation Atmospheric levels should be controlled in compliance with the occupational exposure limit. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2 Individual protection measures, such as personal protective equipment — General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid all contact. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place.
IF exposed: Flush with fresh water if contact with skin or eyes.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye / face protection

Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection

Hand protection:
Wear impervious gloves. Protective index 6, corresponding > 480 minutes of permeation time. Gloves should be changed regularly to avoid permeation problems. (Recommended: EN374) Breakthrough time of the glove material: refer to the information provided by the gloves' producer.
Recommended: PVC / Nitrile rubber

Suitable materials: Polyethylene-Laminate (Minimum thickness 0.1mm)

Body protection:

	Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
Respiratory protection 	Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment. Select a filter suitable for organic gases and vapours. Recommended: EN143, Filter type A.
Thermal hazards	Not applicable

8.2.3 Environmental exposure controls — Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	Almost colourless
Odour	No data available
Melting point and freezing point	No data available
Boiling point or initial boiling point and boiling range	66℃
Flammability	Heating may cause a fire or explosion.
Lower and upper explosion limit or lower and upper flammability limit	Flammable Limits (Lower) (%v/v): 1.8(Acetone) Flammable Limits (Upper) (%v/v): 11.8 (Acetone)
Flash point	-14 ℃ (Mixture)
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient: n-octanol/water (log value)	No data available
Vapour pressure	129 (mmHg) @ 20℃
Density and/or relative density	0.9 (H_2O = 1)
Relative vapour density	2.4 (Air = 1)
Particle characteristics	Not applicable (Liquid)

9.2 Other information

Explosive properties	Heating may cause a fire or explosion.
Volatile Organic Compound Content	712 g/L
Evaporation rate (Butyl acetate = 1)	8 (BuAc = 1)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity — Stable under normal conditions. May form peroxides on prolonged storage if air is present.

10.2 Chemical stability — Stable under normal conditions.

10.3 Possibility of hazardous reactions — The vapour may be invisible, heavier than air and spread along ground. May form explosive peroxides. Contact with aliphatic amines will cause irreversible polymerization with considerable heat build-up.

10.4 Conditions to avoid — Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Keep at a temperature not exceeding (℃): 32. Avoid contact with air. Avoid contact with heat and ignition

		sources and oxidizers. Avoid distillation to dryness, which can form explosive peroxides.
10.5	**Incompatible materials**	Oxidizing agents, corrosive Substances, Reducing agent, Strong Acids and Alkalis
10.6	**Hazardous decomposition product(s)**	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide, Phenolic and Explosive Peroxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity		
Ingestion		Mixture: Acute Tox. 4;H302: Harmful if swallowed.
		Calculated acute toxicity estimate (ATE): estimated LD50: > 2000 - < 5,000 mg/kg.
	Methyl ethyl ketone peroxide	Acute Tox. 4;H302: Harmful if swallowed.
		LD50 (oral,rat) mg/kg: 1017 (OECD 401)
	Hydrogen peroxide	Acute Tox. 4;H302: Harmful if swallowed.
		LD50 (oral,rat) mg/kg: 1026 (OECD 401)
Inhalation		Mixture: Acute Tox. 4 ;H332: Harmful if inhaled.
		Calculated acute toxicity estimate (ATE): estimated LC50 > 1 - <5 mg/l (dust/mist).
	Methyl ethyl ketone peroxide	Acute Tox. 4 ;H332: Harmful if inhaled.
		LC50: 1.5mg/L (dust/mist).
		ECHA registration dossier
	Hydrogen peroxide	Acute Tox. 4 ;H332: Harmful if inhaled.
		ECHA registration dossier/ Harmonised Classification
Skin Contact		Mixture: Based upon the available data, the classification criteria are not met.
		Acute Toxicity Estimate Mixture Calculation: Estimated LD50 > 2000 mg/kg bw/day.
Skin corrosion/irritation		Mixture: Skin Corr. 1B; H314: Causes severe skin burns and eye damage.
	Methyl ethyl ketone peroxide	Skin Corr. 1B; H314: Causes severe skin burns and eye damage.
		Test Result: Corrosive to skin. (rabbit)
		ECHA registration dossier
	Hydrogen peroxide	Skin Corr. 1A; H314: Causes severe skin burns and eye damage.
		Test Result: Corrosive to skin. (rabbit)
		Specific concentration limit (SCL):
		Skin Corr. 1A; H314: C >= 70%
		Skin Corr. 1B; H314: 50% =< C < 70%
		Skin Irrit. 2; H315: 35% =< C < 50%
		ECHA registration dossier/ Harmonised Classification
Serious eye damage/irritation		Mixture: Eye Dam. 1; H318: Causes serious eye damage.
	Methyl ethyl ketone peroxide	Eye Dam. 1; H318: Causes serious eye damage.
		EU Harmonised Classification.
	Hydrogen peroxide	Eye Dam. 1; H318: Causes serious eye damage.
		Test Result: Corrosive to eyes. (rabbit) OECD 405
		Specific concentration limit (SCL):
		Eye Dam. 1; H318: 8% =< C < 50%
		Eye Irrit. 2; H319: 5% =< C < 8%
		ECHA registration dossier/ Harmonised Classification
Respiratory or skin sensitization		Mixture: Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity		Mixture: Based upon the available data, the classification criteria are not met.
Carcinogenicity		Mixture: Based upon the available data, the classification criteria are not met.
Reproductive toxicity		Mixture: Repr. 2; H361: Suspected of damaging fertility or the unborn child.
	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Repr. 2; H361: Suspected of damaging fertility or the unborn child.
		ECHA registration dossier
STOT - single exposure		Mixture: Based upon the available data, the classification criteria are not met.
STOT - repeated exposure		Mixture: Based upon the available data, the classification criteria are not met.
Aspiration hazard		Mixture: Based upon the available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1	Endocrine disrupting properties	This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
11.2.2	Other information	None

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
12.2	**Persistence and degradability**	No data for the mixture as a whole.
	Methyl ethyl ketone Peroxide	Readily biodegradable. Degradation in water (28 days) – 87% (OECD 301 D)
	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Readily biodegradable. Degradation in water (28 days) – 70.73% (OECD 301 B)
	Methyl ethyl ketone	Readily biodegradable. Water % Degradation: 98% (28 days) (Unnamed publication, 1998)
	Hydrogen peroxide	Degradation in soil is rapid due to the occurrence of high concentrations of catalytic material.
12.3	**Bioaccumulative potential**	No data for the mixture as a whole.
	Methyl ethyl ketone Peroxide	Can be waived on basis of log Kow < 3
	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Not anticipated to bioaccumulate BCF: <500 (OECD 305)
	Methyl ethyl ketone	Low bioaccumulation potential.
	Hydrogen peroxide	Hydrogen peroxide is reactive and short-lived polar substance and no bioaccumulation is expected.
12.4	**Mobility in soil**	No data for the mixture as a whole.
	Methyl ethyl ketone Peroxide	The substance has moderate mobility in soil. Log Koc: 2.52 (Unnamed publication, 2018)
	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	The substance has moderate mobility in soil. Log Koc: 3.51 (Meylan et al. 1992)
	Methyl ethyl ketone	The substance is predicted to have high mobility in soil. EU ECHA Registration Endpoint summary
	Hydrogen peroxide	The substance is predicted to have high mobility in soil.
12.5	**Results of PBT and vPvB assessment**	Not classified as PBT or vPvB.
12.6	**Endocrine disrupting properties**	This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
12.7	**Other adverse effects**	None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	This material and its container must be disposed of as hazardous waste. Dispose of wastes in an approved waste disposal facility. Waste classification according to Directive 2008/98/EC (Waste Framework Directive) **:** HP3, HP4, HP6, HP8, HP10
13.2	**Additional Information**	Dispose of contents in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	**ADN**	**IMDG**	**IATA/ICAO**
14.1	**UN number or ID number**	UN 3105	UN 3105	UN 3105	UN 3105
14.2	**UN proper shipping name**	ORGANIC PEROXIDES, TYPE D, LIQUID (Contains Methyl ethyl ketone Peroxide)	ORGANIC PEROXIDES, TYPE D, LIQUID (Contains Methyl ethyl ketone Peroxide)	ORGANIC PEROXIDES, TYPE D, LIQUID (Contains Methyl ethyl ketone Peroxide)	ORGANIC PEROXIDES, TYPE D, LIQUID (Contains Methyl ethyl ketone Peroxide)

14.3	**Transport hazard class(es)**	5.2	5.2	5.2	5.2
14.4	**Packing group**	Not classified	Not classified	Not classified	Not classified
14.5	**Environmental hazards**	Not classified	Not classified as a Marine Pollutant.	Not classified	Not classified
14.6	**Special precautions for user**	See Section: 2			
14.7	**Maritime transport in bulk according to IMO instruments**	No information available.			
14.8	**Additional Information**	No information available.			

SECTION 15: REGULATORY INFORMATION

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

15.1.1 EU regulations

Use restriction according to REACH annex XVII, no.:	Identified Use(s) not restricted (Product) Methyl ethyl ketone Entry number:40, 75 Hydrogen peroxide Entry number:75
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]	P5c
Restrictions of occupation:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
To follow:	Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

15.1.2 National regulations

Germany

Water hazard class (WGK)	slightly hazardous to water (WGK 1)

15.2 Chemical Safety Assessment A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: V2.0 - New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References:

EU classification and labelling inventory for Methyl ethyl ketone peroxide (CAS No. 1338-23-4), 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate (CAS No. 6846-50-0)
Harmonised Classification(s) for Methyl ethyl ketone (CAS No. 78-93-3) and hydrogen peroxide (CAS No. 7722-84-1).
Existing Safety Data Sheet (SDS)
ECHA registration dossier for Methyl ethyl ketone peroxide (CAS No. 1338-23-4), 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate (CAS No. 6846-50-0), methyl ethyl ketone (CAS No. 78-93-3), hydrogen peroxide (CAS No. 7722-84-1).

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Org. Perox. D; H242	Expert judgement
Acute Tox. 4; H302	Acute Toxicity Estimate (ATE) Mixture Calculation
Skin Corr. 1B; H314	Threshold Calculation
Eye Dam. 1; H318	Threshold Calculation
Acute Tox. 4; H332	Threshold Calculation
Repr. 2; H361	Threshold Calculation

LEGEND

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EU	European Union
EC	European Community
ECHA	European Chemicals Agency
EN	European Standard
EC50	Effect concentration; 50 %
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC50	Lethal concentration at which 50% of the population is killed
LD50	Lethal dose at which 50% of the population is killed
LTEL	Long term exposure limit
NOAEC	No observed adverse effect concentration
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time Weighted Average
SCL	Specific concentration limit (SCL)
STEL	Short term exposure limit
vPvB	very Persistent and very Bioaccumulative
UN	United Nations
VOC	Volatile organic compounds

Hazard classification / Classification code:
Flam. Liq. 2; Flammable liquid, Category 2
Org. Perox. D; Organic peroxide, Category 1
Ox. Liq. 1; Oxidising liquid, Category 1
Acute Tox. 4; Acute toxicity, Category 4
Skin Corr. 1A; Skin corrosion/irritation, Category 1
Eye Dam. 1; Serious eye damage/irritation, Category 1
Eye Irrit. 2; Serious eye damage/irritation, Category 2
Acute Tox. 4; Acute toxicity, Category 4
STOT SE 3; Specific target organ toxicity — single exposure, Category 3
STOT SE 3; Specific target organ toxicity — single exposure, Category 3
Repr. 2; Reproductive toxicity, Category 2
Aquatic Chronic 3; Hazardous to the aquatic environment, Chronic , Category 3

Hazard Statement(s)
H225: Highly flammable liquid and vapour.
H242: Heating may cause a fire.
H271: May cause fire or explosion; strong oxidiser.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H412: Harmful to aquatic life with long lasting effects.

EUH066: Repeated exposure may cause skin dryness or cracking.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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