



Safety Data Sheet according to (EC) No 1907/2006 as amended

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BONDERITE M-AD 24 OX known as AQUENCE 24 OXIDIZER

SDS No. : 46756
V004.1

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

1.1. Product identifier

BONDERITE M-AD 24 OX known as AQUENCE 24 OXIDIZER

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

Intended use:

Corrosion Protection Coating for Metals

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website <https://mysds.henkel.com/index.html#/appSelection> or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity H302 Harmful if swallowed. Route of Exposure: Oral	Category 4
Skin irritation H315 Causes skin irritation.	Category 2
Serious eye damage H318 Causes serious eye damage.	Category 1
Specific target organ toxicity - single exposure H335 May cause respiratory irritation. Target organ: respiratory tract irritation	Category 3
Chronic hazards to the aquatic environment H413 May cause long lasting harmful effects to aquatic life.	Category 4
Acute toxicity H332 Harmful if inhaled. Route of Exposure: Inhalation	Category 4

2.2. Label elements**Label elements (CLP):****Hazard pictogram:****Contains**

Hydrogen peroxide

Signal word:

Danger

Hazard statement:

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H413 May cause long lasting harmful effects to aquatic life.

**Precautionary statement:
Prevention**

P261 Avoid breathing mist/spray.
 P280 Wear protective gloves/eye protection.

**Precautionary statement:
Response**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.
 Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration $\geq 0,1\%$ and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration \geq the concentration limit that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Hydrogen peroxide 7722-84-1 231-765-0 01-2119485845-22	20- 40 %	Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412 Ox. Liq. 1, H271 Acute Tox. 4, Oral, H302 Acute Tox. 4, Inhalation, H332 Skin Corr. 1A, H314	Skin Corr. 1B; H314; C 50 - < 70 % Eye Irrit. 2; H319; C 5 - < 8 % Ox. Liq. 2; H272; C 50 - < 70 % Skin Corr. 1A; H314; C \geq 70 % Skin Irrit. 2; H315; C 35 - < 50 % Eye Dam. 1; H318; C 8 - < 50 % Ox. Liq. 1; H271; C \geq 70 % STOT SE 3; H335; C \geq 35 % Aquatic Chronic 3; H412; C \geq 63 %	EUEXPL1D

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water.

In case of adverse health effects seek medical advice.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.

Immediate medical treatment necessary.

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

SKIN: Redness, inflammation.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

None known

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Neutralize with acid-binding material (e.g. powdered limestone).
Take up with liquid-absorbing material (sand).
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Avoid skin and eye contact.
Ensure that workrooms are adequately ventilated.
Product contains hydrogen peroxide: Contamination with metal ions might lead to an exothermic reaction generating water & oxygen. Use a suitable clean pump and hose made of stainless steel or plastic. Used product should not be kept in air-tight containers to prevent build up of pressure.
See advice in section 8
When diluting, always stir slowly the product into standing water.

Hygiene measures:

Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke when using this product.
Take off contaminated clothing and wash before reuse.
The workplace should be equipped with an emergency shower and eye-rinsing facility.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, frost-free place.
Keep container tightly sealed.
Keep container in a well ventilated place.
Do not store or use near heat, spark, open flame or other sources of ignition.
Do not use packing made of metal.
Do not store together with substances which intensify fire.
Do not store with strongly acidic or strongly alkaline products.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)

Corrosion Protection Coating for Metals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Hydrogen peroxide 7722-84-1 [HYDROGEN PEROXIDE]	1	1,4	Time Weighted Average (TWA):		EH40 WEL
Hydrogen peroxide 7722-84-1 [HYDROGEN PEROXIDE]	2	2,8	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Hydrogen peroxide 7722-84-1 [HYDROGEN PEROXIDE]	1	1,5	Time Weighted Average (TWA):		IR_OEL
Hydrogen peroxide 7722-84-1 [HYDROGEN PEROXIDE]	2	3	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Hydrogen peroxide 7722-84-1	aqua (marine water)		0,013 mg/l				
Hydrogen peroxide 7722-84-1	aqua (freshwater)		0,013 mg/l				
Hydrogen peroxide 7722-84-1	sewage treatment plant (STP)		4,66 mg/l				
Hydrogen peroxide 7722-84-1	sediment (marine water)				0,047 mg/kg		
Hydrogen peroxide 7722-84-1	aqua (intermittent releases)		0,014 mg/l				
Hydrogen peroxide 7722-84-1	sediment (freshwater)				0,047 mg/kg		
Hydrogen peroxide 7722-84-1	Soil				0,002 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Hydrogen peroxide 7722-84-1	Workers	inhalation	Acute/short term exposure - local effects		3 mg/m ³	
Hydrogen peroxide 7722-84-1	Workers	inhalation	Long term exposure - local effects		1,4 mg/m ³	
Hydrogen peroxide 7722-84-1	General population	inhalation	Acute/short term exposure - local effects		1,93 mg/m ³	
Hydrogen peroxide 7722-84-1	General population	inhalation	Long term exposure - local effects		0,21 mg/m ³	

Biological Exposure Indices:

None

8.2. Exposure controls:**Engineering controls:**

Ensure good ventilation/suction at the workplace.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

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

Physical state	liquid
Delivery form	liquid
Colour	colourless
Odor	Slight, pungent
Melting point	-26 °C (-14.8 °F)
Solidification temperature	-25,7 °C (-14.3 °F) Aqueous solution
Initial boiling point	106 °C (222.8 °F) Aqueous solution
Flammability	Not applicable
	Aqueous solution

Explosive limits	Not applicable, The product is not flammable., Aqueous solution
Flash point	Not applicable, Aqueous solution
Auto-ignition temperature	Not applicable, The product is not flammable., Aqueous solution
Decomposition temperature	> 100 °C (> 212 °F); no method
pH (20 °C (68 °F); Conc.: 100 %; Solvent: Demineralised water)	2 - 4 PH-value, potentiometer
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Miscible
Vapour pressure (20 °C (68 °F))	18 hPa(aqueous solution)
Density (20 °C (68 °F))	1,120 - 1,145 g/cm ³ Density, oscillation
Relative vapour density: (20 °C)	< 1 Aqueous solution

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong bases

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

In case of fire toxic gases can be released.

SECTION 11: Toxicological information

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Hydrogen peroxide 7722-84-1	LD50	693,7 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Hydrogen peroxide 7722-84-1	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

No substance data available.

No data available.

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	Category 1A (corrosive)	1 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	corrosive		rabbit	Draize Test

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Hydrogen peroxide 7722-84-1	not sensitising		guinea pig	not specified

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
Hydrogen peroxide 7722-84-1	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Hydrogen peroxide 7722-84-1	positive	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Hydrogen peroxide 7722-84-1	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Hydrogen peroxide 7722-84-1	NOAEL > 100 ppm	oral: drinking water	ca. 90 d ad libitum	mouse	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information**General ecological information:**

Do not empty into drains / surface water / ground water.

Locally harmful for aquatic and landliving organisms because of low pH and corrosive properties.

Inorganic product: Decomposition not affected.

12.1. Toxicity**Toxicity (Fish):**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	LC50	16,4 mg/l	96 h	Pimephales promelas	other guideline:

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	EC50	2,4 mg/l	48 h	Daphnia pulex	other guideline:

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	NOEC	0,63 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	NOEC	0,63 mg/l	72 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hydrogen peroxide 7722-84-1	EC50	1,38 mg/l	72 h	Skeletonema costatum	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Hydrogen peroxide 7722-84-1	EC50	> 1.000 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Hydrogen peroxide 7722-84-1	-1,57	20 °C	QSAR (Quantitative Structure Activity Relationship)

12.5. Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT / vPvB
Hydrogen peroxide 7722-84-1	According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not be conducted for inorganic substances.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

061399

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	2014
RID	2014
ADN	2014
IMDG	2014
IATA	2014

14.2. UN proper shipping name

ADR	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
RID	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
ADN	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
IMDG	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
IATA	Hydrogen peroxide, aqueous solution

14.3. Transport hazard class(es)

ADR	5.1 (8)
RID	5.1 (8)
ADN	5.1 (8)
IMDG	5.1 (8)
IATA	5.1 (8)

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EU)	0 %

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Please see https://ec.europa.eu/home-affairs/what-we-do/policies/counter-terrorism/protection/implementation-explosives-precursors-legislation_en.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Great Britain):

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)
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SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H271 May cause fire or explosion; strong oxidizer.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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