

SAFETY DATA SHEET

Safety data sheet in accordance with Annex I of Commission Regulation (EU) No. 453/2010 of 20th May 2010 of the European parliament and of the Council on the Registration.

1. Identification of the substance/preparation and company/undertaking
 - 1.1 Product identifier: Astonish Mould & Mildew Remover
 - 1.2 Use of the preparation: Removal of mould and mildew stains on a household scale.
 - 1.3 Company: The London Oil Refining Company Ltd
Astonish House
Unit 1 Premier Point
Staithgate Lane
Bradford BD6 1DW
Tel: (01274)767440 Fax: (01274) 726285
www.astonishcleaners.com info@astonish.co.uk
 - 1.4 Emergency Telephone (01274) 767440 (office hours only)



2. Hazards identification
 - 2.1 Classification of the mixture
This product is classified as irritant in accordance to EU directive 1999/45/EC. R36/38—Irritating to eyes and skin and R31—Contact with acids liberates toxic gas (chlorine).
 - 2.2 Label elements
Indications of danger



R Risk phrases

- R36/38 Irritating to eyes and skin
 - R31 Contact with acids liberates toxic gas (chlorine).
- S Safety advice
- S2 Keep out of the reach of children.
 - S14 Keep away from acids.
 - S23 Do not breathe spray.
 - S24/25 Avoid contact with skin and eyes.
 - S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - S46 If swallowed seek medical advice immediately and show this container or label.

Hazardous components that must be listed in the label:

<5% Anionic surfactants and sodium hydroxide, 2.25g/kg chlorine-based bleaching agents.

- 2.3 Other hazards

3. Composition/information on ingredients

Chemical	CAS No.	EINECS No.	Registration Number	% Conc.	Classification (67/548)	Classification (EC1272/2008)
Sodium hypochlorite	7681-52-9	231-666-3	01-2119488154-34-XXXX	1-5%	C, N, R31 R34 R50	Skin Corr. 1B, H314 Aquatic Acute 1, H400
A mixture of: tetrasodium phosphonoethane-1,2-dicarboxylate; hexasodium phosphonobutane-1,2,3,4-tetracarboxylate	143239-08-1	410-800-5	01-0000015829-57-0000	0.1-1%	Xi, N, R43 R51-53	Skin Sens. 1 H317 Aquatic Chronic 4, H411
Sodium hydroxide	1310-73-2	215-185-5	01-2119457892-27-XXXX	0-1%	C, R35	Met. Corr. 1 H290 Skin Corr. 1A H314

For the full text of R phrases and other abbreviations listed here refer to section 16.

4. First Aid measures
- 4.1 Description of first aid measures
- Inhalation:
Remove exposure and give water to drink if mouth irritation experienced. Seek medical advice if recovery not rapid.
- Eye:
Rinse thoroughly with water for several minutes. If symptoms persist seek medical advice.
- Skin:
Remove contaminated clothing and rinse affected area with plenty of water. If symptoms persist seek medical advice.
- Ingestion:
Drink water. If symptoms persist seek medical advice.
- 4.2 Most important symptoms and effects, both acute and delayed.
- Inhalation:
Possible mild irritation of breathing passage and possible mouth irritation.
- Eye:
Irritation, redness and soreness.
- Skin:
Mild irritation of skin.
- Ingestion:
Possible mild stomach upset and mild soreness of mouth
- 4.3 Indication of any immediate medical attention and special treatment needed.

5. Fire fighting measures
- 5.1 Extinguishing media.
Use extinguisher suitable to cause of fire.
- 5.2 Special hazards arising from the mixture.
Product does not support combustion. Heat may result in chlorine gas, hydrogen chloride gas and chlorine oxides.
- 5.3 Advice for firefighters.
Wear breathing apparatus suitable for chlorine gas.

6. Accidental release measures
- 6.1 Personal precautions, protective equipment and emergency procedures
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- 6.2 Environmental precautions
Product is intended to be rinsed away to sewer after use. For bigger spillages and non-household spillages prevent entry into sewer or drains.
- 6.3 Methods and material for containment and cleaning up.
Absorb household spillages with e.g. kitchen roll and dispose of in bin. Wipe effected area clean with a damp cloth.
- 6.4 Reference to other sections
See sections 8 and 13.

7. Handling and storage.
- 7.1 Precautions for safe handling.
Use in a well ventilated area. Spray away from face and avoid breathing spray.
- 7.2 Conditions for safe storage, including any incompatibles.
Store in ambient conditions away from acids.
- 7.3 Specific end use(s).
Cleaning and sterilising hard surfaces around the home. Observe precautions in section 7.1.

8. Exposure controls/ personal protection
- 8.1 Control parameters
Substances with occupational exposure limits:

Component	Regulatory List	Value Type	Value
Chlorine	EU ELV	STEL	0.5ppm ; 1.5mg/m ³
	EH40 WEL	STEL	0.5ppm ; 1.5mg/m ³

Sodium hydroxide

Regulatory basis	Regulatory list	Value Type	Value
UK. EH40 workplace exposure limits (WELs)	EH40 WEL	Short term exposure limit (STEL)	2 mg/m ³

8.2 Exposure controls

Use in a well ventilated area. Where this is not possible wear tight fitting goggles and use respirator with vapour filter e.g. B-P2 or B-P3.

For prolonged use or for employees with known skin conditions or sensitivity wear gloves made from butyl rubber, PVC or polychlorophene with a recommended 8h resistance time and 0.5mm thick.

9. Physical and chemical properties

9.1 Important health, safety and environmental information

Appearance:	Pale yellow liquid	Odour:	Bleach
pH :	12.5 — 13.5	Boiling point:	Not measured (>100°C)
Flash Point:	Not applicable	Flammability:	Does not ignite
Explosive properties:	None	Oxidising properties:	Not available
Vapour pressure:	Not available	Relative density:	1.040—1.060
Solubility:	Soluble in water	Water solubility:	Completely soluble
Partition coefficient: n-octanol/water:			Not available
Viscosity:	Not measured	Vapour density:	>1 (Air=1)
Evaporation rate:	Not measured		

9.2 Other information

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10. Stability and reactivity

10.1 Reactivity

Will react with acids to produce chlorine gas.

10.2 Chemical stability.

Decomposes under normal conditions over a very long period.

10.3 Possibility of hazardous reaction.

Will produce chlorine when reacted with acids. Retail pack will produce such low volumes the risk to health is considered negligible.

10.4 Conditions to avoid.

Avoid heat, Chlorine gas will be liberated upon heating.

10.5 Incompatible materials

Avoid contact with acids, organic materials, hydrogen peroxide, metal salts, copper, nickel, iron and ammonia and ammonium compounds— Chlorine gas will be liberated upon contact.

10.6 Hazardous decomposition products

Rapid and extreme decomposition may release acids of phosphorus, phosphorus oxides, carbon oxides, hydrogen chloride, chlorine and chlorine oxides.

11. Toxicological information

11.1 Toxicity

The mixture has not been tested. Based on the data available on the ingredients the classification criteria are not met. Estimated acute oral toxicity:

Sodium hypochlorite;

LD50 oral mouse	2900-3400 mg/kg
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LD50 dermal rabbit	> 2000 mg/kg
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LC50 inhalation rat	10.5 mg/kg
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Sodium hydroxide

Acute toxicity

Oral (rat)	LD50	2000mg/kg
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Mixture of tetrasodium phosphonoethane-1,2-dicarboxylate: hexasodium phosphonobutane-1,2,3,4-tetracarboxylate

Skin corrosion/irritation:

Specific effects Toxicity for repeated doses (28 days) - oral/rat.
NOEL 400mg/kg/day

The mixture has not been tested. Based on the data available on the ingredients the classification criteria are not met

Sodium hypochlorite;

	Species	Result	Method	Remarks
Skin Irritation	Rabbit	Severe skin irritation	OECD Test Guideline 404	
Skin Irritation	Human	Corrosive effects		
Eye Irritation	Rabbit	Corrosive effects		Risk of serious damage to eyes

Respiratory or skin sensitization:

The mixture has not been tested. Based on the data available on the ingredients the classification criteria are not met

Mixture of tetrasodium phosphonoethane-1,2-dicarboxylate: hexasodium phosphonobutane-1,2,3,4-tetracarboxylate ;

Mutagenicity

Mixture of tetrasodium phosphonoethane-1,2-dicarboxylate: hexasodium phosphonobutane-1,2,3,4-tetracarboxylate ;

Sensitization May cause sensitization on contact with skin.

Amnes test

- Chromosomal aberrations: Negative
 - (with metabolic activation) Mammalian cells (CHL) In vitro
 - (without metabolic activation) Positive
- In vivo micronucleus test (mouse) Negative
In vivo UDS test (rat) Negative
Negative

12. Ecological information

12.1 Toxicity

The mixture has not been tested. Based on the data available on the ingredients the classification criteria are not met.

Sodium hypochlorite;

Species	Exposure time	Value type	Value
Fish (pimephales promelas)	96h	LC50	0.22-0.62 mg/l
Daphnia magne	96h	EC50	2.1 mg/l
Green algae (desmodesmus subspicatus)	24h	EC50	28 mg/l

Sodium hydroxide;

Species	Exposure time	Value type	Value
Fish (gambusia affinis)	96h	LC50	125 mg/l
Daphnia magne	24h	EC50	76 mg/l
Bacteria (photobacterium phosphoreum)	15min	EC50	22 mg/l

Mixture of tetrasodium phosphonoethane-1,2-dicarboxylate: hexasodium phosphonobutane-1,2,3,4-tetracarboxylate ;

Species	Exposure time	Value type	Value
Fish (Iepomis macrochirus)	96h	LC50	>100 mg/l
Daphnia magna	48h	EC50	>1000 mg/l
Fresh water algae (pseudokirchneriella subcapitata)	72h	EC50	72 mg/l
Bacteria : Activated sludge	3h	EC50	>1000 mg/l

12.2 Persistence and biodegradability

Contains detergents that satisfy the biodegradation requirements of directive 648/2004/EC.

Mixture of tetrasodium phosphonoethane-1,2-dicarboxylate: hexasodium phosphonobutane-1,2,3,4-tetracarboxylate:

Not readily biodegradable. OECD method 310C: 9% biodegradation after 28 days.

12.3 Bioaccumulative potential

Bioaccumulation is not expected.

12.4 Mobility

Sodium hypochlorite:

Mobile in the water environment.

Sodium hydroxide:

Mobile in the water environment.

12.5 Results of PBT assessment

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12.6 Other adverse effects.

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13. Disposal consideration.

13.1 Waste treatment methods

Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment. Do not allow large amounts to enter septic tanks and other such sewerage installations.

Dispose of contaminated packaging in the same way as the product itself. Non-contaminated packages may be recycled.

14. Transport information

Not regulated for transport.

15. Regulatory information

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

Commission Regulation (EC) No. 453/2010 of 20th May 2010 amending Regulation (EC) No. 1907/2006 of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Directive 1999/45/EC of 31st May 1999, The Dangerous Preparations Directive.

Regulation (EC) No. 648/2004 of the European Parliament and of the Council of 31st March 2004 on detergents.

Directive 98/8/EC of the European Parliament and of the Council of 16 February 1998 concerning the placing of biocidal products on the market

15.2 Chemical Safety Assessment

The chemical safety assessment has not been carried out for the mixture.

16. Other information.

In addition to the R and S phrases stated in section 15 the full text of other phrases and statements etc. used but not written out in full in other sections are listed in full here;

R31 Contact with acids liberates toxic gas (chlorine).

R34 Causes burns

R35 Causes severe burns

R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H290	May be corrosive to metals
H314	Causes very severe burns and eye damage
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Aquatic Acute 1	Acute aquatic toxicity Category 1
Skin Sens 1.	Skin sensitization 1
Aquatic Chronic 4	Chronic aquatic toxicity Category 4
Met. Corr. 1	Metal corrosion Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A