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Electrode Conditioning Solution A		

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

Product name : Electrode Conditioning Solution A
Product number : R-300-025ECS-01,
Substance name : IM Sodium Hydroxide
REACH reg no. : This product is exempt from registration, insufficient annual volume.

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

Identified uses : Reagent for analysis and electrode preparation

1.3 Details of the supplier of the safety data sheet

Company : Modern Water Monitoring Limited
: Units 15-17 Cambridge Science Park
: Cambridge, CB4 0FQ
: UK
Email : info@modernwater.co.uk

1.4 Emergency telephone number

+44 (0) 1483 696030

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin corrosion/irritation, category 1B

Serious eye damage/irritation, category 1

2.2 Label elements


Hazard pictogram



Signal Word: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage
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Precautionary statements:

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P381	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P310	IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

2.3 Other hazards : Not known

SECTION 3: Composition/information on ingredients

3.1 Substance : Not relevant, see 3.2 Mixtures

3.2 Mixtures

Hazardous ingredients classification according to Regulation (EC) No. 1272/2008 CLP

Substance name	Concentration	CAS No	EC No
Sodium Hydroxide	4%	1310-73-2	215-185-5
H314 – causes severe skin burns and eye damage, Category 1A			

SECTION 4: First Aid measures
4.1 Description of first aid measure

General advice: When in doubt or if symptoms observed, get medical advice. Show this safety data sheet to the doctor in attendance.

After Inhalation: If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Remove from exposure, lie down. Call a physician immediately.

In case of skin contact: Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Call a physician immediately.

After eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

In case of ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

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SECTION 5: Fire-fighting measures.

5.1 Extinguishing media:

Suitable extinguishing media

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

Unsuitable extinguishing media

No restriction

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapours. The product causes burns of eyes, skin and mucous membranes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus.

5.4 Additional information

Do not let run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment (see section 8). Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

6.2 Environmental precautions

Do not let product enter drains or surface water. Spills are to be contained. Discharge into environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in a suitable closed container for disposal. Dispose correctly, referring to local regulations.

6.4 References to other sections

For disposal see section 13.

SECTION 7: Handling and storage.

7.1 Precautions for safe handling

Avoid exposure to skin and eyes.

7.2 Conditions for safe storage, including and incompatibilities

Store in a cool place, below 25°C. Keep contained upright and the cap tightly closed.

7.3 Specific end use(s)

Apart from uses specified in section 1.2, no other specific uses.

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SECTION 8: Exposure controls/personal protection.

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No	Value type	Limit value	
Sodium Hydroxide	1310-73-2	STEL	1ppm (2 mg/m3)	EU and UK EH40 WEL

8.2 Exposure controls:

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

Personal protective equipment

Wear suitable protective clothing

Eye/face protection

Safety glasses with side-shields conforming to EN166 or equivalent standard.

Skin protection

Handle with gloves (PVC or nitrile)

SECTION 9: Physical and chemical properties.

9.1 Information on basic physical and chemical properties

Appearance	Clear colourless Liquid
Odour	none
Odour threshold	no data available
pH	14 (approx.)
Melting point/range (°C)	no data available
Boiling point (°C):	no data available
Flash point	not flammable
Evaporation rate	no data available
Flammability (solid/gas)	not applicable
Upper/lower flammability rates	not flammable
Vapour pressure (mmHg at 20°C)	23 (approx.)
Vapour density	no data available
Relative density	1.04 (approx.)
Water solubility	completely miscible
Partition coefficient: n-octane/water	no data available
Auto ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Explosive properties	not explosive
Oxidising properties	no data available

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9.2 Other data

Corrosion Corrosive to metals

SECTION 10: Stability and reactivity.

10.1 Reactivity

Mildly reactive to metals and acids.

10.2 Chemical stability

This product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Metals, Acids

10.6 Hazardous decomposition products

Sodium Oxides

SECTION 11: Toxicological information.

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Causes severe skin burns,

Serious eye damage/eye irritation

Causes severe eye damage.

Respiration or skin sensitisation

Not sensitising

Germ cell mutagenicity

No indication of human germ cell mutagenicity exist

Carcinogenicity

No indication of human carcinogenicity

Reproductive toxicity

No indication of human reproductive toxicity exist

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Specific target organ exposure – single exposure

No data available

Specific target organ exposure – repeated exposure

No data available

Aspiration hazard

Not applicable

Other adverse effects

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.
Possible perforation of stomach or oesophagus should be investigated: Ingestion causes
Severe swelling, severe damage to the delicate tissue and danger of perforation

SECTION 12: Ecological information.

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Will be mobile due to its solubility in water

12.5 Results of PBT and vPvB assessment

This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Large amounts will effect pH and be harmful to aquatic life.

SECTION 13: Disposal considerations.

13.1 Waste treatment methods:


Product

Dispose in accordance to local regulations, consult the local waste disposal expert.

Contaminated packaging

Dispose in accordance to local regulations, the same way as the product itself.

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SECTION 14: Transport information.

Typical quantities of this product can be shipped under the exempted quantities classifications.

Land transport (ADR/RID)

14.1	UN number	UN1824
14.2	UN proper shipping name	SODIUM HYDROXIDE SOLUTION
14.3	Transport hazard	8
14.4	Packaging group	III
14.5	Environmental hazards	No hazards identified
14.6	Special precaution for user	No special precautions required

Air transport (IATA)

14.1	UN number	UN1824
14.2	UN proper shipping name	SODIUM HYDROXIDE SOLUTION
14.3	Transport hazard	8
14.4	Packaging group	III
14.5	Environmental hazards	No hazards identified
14.6	Special precaution for user	No special precautions required

SEA transport (IMDG)


14.1	UN number	UN1824
14.2	UN proper shipping name	SODIUM HYDROXIDE SOLUTION
14.3	Transport hazard	8
14.4	Packaging group	III
14.5	Environmental hazards	No hazards identified
14.6	Special precaution for user	No special precautions required

SECTION 15: Regulatory information.
15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture
General rules

Water hazard class (WGK): slightly hazardous to water (WGK I)

EU: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)

EU: Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing

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Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)

EU: Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information.

Abbreviations and acronyms

ADR – European Agreement Concerning the International Carriage of Dangerous Goods by Road

IATA – International Air Transportation Association

IMDG – international Maritime Code of Dangerous Goods

STEL – Short term exposure limit

TWA – Time Weighted Average

WEL – Workplace Exposure Limit

Symbol, R and S phrases for this mixture

Symbol	Xi- Irritant	
R-phrase(s)	R34	Causes burns
S-phrase(s)	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
	S60	This material and its container must be disposed of as hazardous waste.

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