

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: Sodium Aluminate Solution
Synonyms, Trade Names: Aluminium Sodium Dioxide
CAS-No.: 1302-42-7
EC No.: 215-100-1

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

Identified uses: Water treatment. Chemical manufacturing. Pulp and paper manufacturing.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):	Physical and Chemical Hazards	Not classified.
	Human health	Skin Corr. 1A - H314; Eye Dam. 1 - H318
	Environment	Not classified.

Classification (1999/45/EEC): C;R35. Xi;R41. The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Label elements:

EC No.: 215-100-1
Contains: SODIUM ALUMINATE SODIUM HYDROXIDE

Label In Accordance With (EC) No. 1272/2008



Signal Word: Danger

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Hazard Statements: H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Supplementary Precautionary Statements: P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe vapour/spray.
P264 Wash contaminated skin thoroughly after handling.
P321 Specific treatment (see medical advice on this label).
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 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/physician. P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container to ...

Other hazards: The hazardous nature of this material is due primarily to the high level of free sodium hydroxide, so the information on this sheet is based on that known for sodium hydroxide solution.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

SODIUM ALUMINATE:	10-30%
CAS-No.:	1302-42-7
EC No.:	215-100-1
Classification (67/548/EEC)	Classification (EC 1272/2008)
Skin Corr. 1A - H314	C;R35.

SODIUM HYDROXIDE:	10-30%
CAS-No.:	1310-73-2
EC No.:	215-185-5
Classification (EC 1272/2008)	Classification (67/548/EEC)
Skin Corr. 1A - H314	C;R35

Water:	60-100%
CAS-No.:	7732-18-5
EC No.:	
Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

CAS-No.:	1302-42-7
EC No.:	215-100-1

[cont...]

4. FIRST AID MEASURES

Description of first aid measures:

General information:	Seek medical attention immediately, or transport to hospital, while administering emergency measures. Speed is essential!
Inhalation:	Rinse nose, mouth, and throat with running water.
Ingestion:	Do not induce vomiting. If confined to the mouth, rinse mouth thoroughly and ensure water is not swallowed. If substance has been swallowed, give water or milk to drink immediately.
Skin contact:	Remove contaminated clothing. Flush skin thoroughly with water.
Eye contact:	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart.

Most important symptoms and effects, both acute and delayed:

General information:	Strong corrosive action on all body tissue, causing burns and frequently deep ulceration, and ultimately scarring.
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Indication of any immediate medical attention and special treatment needed:

5. FIRE-FIGHTING MEASURES

Extinguishing media:	The product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.
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Special hazards arising from the substance or mixture:

Advice for firefighters:

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear protective clothing as described in Section 8 of this safety data sheet. In case of spills, beware of slippery floors and surfaces.

Environmental precautions:	Do not allow to enter drains, sewers or watercourses. Release to rivers will cause a strong increase in pH, resulting in death to aquatic organisms.
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Methods and material for containment and cleaning up Small Spillages:

Neutralise with weak acid and wash away with water. Large Spillages: Isolate and pump into a tank. Keep people and animals away from contaminated areas. Do not contaminate water sources or sewer. Dam and absorb spillages with sand, earth or other non-combustible material.

Reference to other sections:

7. HANDLING AND STORAGE

Precautions for safe handling:	Handle with care as an alkaline material. Avoid contact with skin and eyes. Wear appropriate protective clothing.
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Conditions for safe storage, including any incompatibilities: Store in vessels of mild steel. Keep away from acids and other chemicals that react with sodium hydroxide.

Specific end use(s):

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Name	STD	TWA - 8 Hrs	STEL - 15 Min	Notes
SODIUM HYDROXIDE	WEL		2 mg/m ³	
WEL = Workplace Exposure Limit.				

Exposure controls:

Protective equipment:



Engineering measures:	Provide eyewash stations and safety showers close to the workstation area.
Respiratory equipment:	Extraction system/hood.
Hand protection:	Rubber or plastic.
Eye protection:	Wear goggles/face shield.
Other Protection:	Chemical suit and boots if handling large quantities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Coloured liquid.
Colour:	Colourless to Amber.
Odour:	Odourless.
Solubility:	Miscible with water
Initial boiling point and boiling range:	>100
Melting point (°C):	-20
Relative density:	1.4 - 1.5 20
pH-Value, Conc. Solution:	14
Other information:	

10. STABILITY AND REACTIVITY

Reactivity:

Chemical stability:

Possibility of hazardous reactions:

Conditions to avoid: Will absorb carbon dioxide from the air, to form sodium carbonate.

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Incompatible materials:

Materials to avoid: Reacts violently with strong acids, amphoteric metals such as aluminium, its alloys, magnesium, zinc, tin and bronze to release hydrogen gas. May react violently with acrolein, acrylnitrile, and allyl alcohol. Heating with trichloroethylene will form explosive mixtures of dichloroacetylene. Reaction with ammonium compounds releases ammonia. Some plastics, leather and textiles are destroyed on contact.

Hazardous decomposition products: Thermally stable to boiling point; does not decompose. Mixture with water or acids will release large quantities of heat, and may cause accidents.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity: Acute Toxicity (Oral LD50) > 2000 mg/kg
Acute Toxicity (Inhalation LC50) > 888 mg/l (vapours) Rat 4 hours

Skin Corrosion/Irritation: Corrosive to skin.

General information: Strong corrosive action on all body tissue, causing burns and frequently deep ulceration, with ultimate scarring.

Inhalation: Mist/droplets are corrosive to the respiratory tract, and will cause a burning sensation in the throat, coughing and breathing difficulties. Pulmonary oedema (excessive liquid in lungs) can occur after inhalation of higher amounts.

Ingestion: If ingested will cause severe damage to gastrointestinal tract. Can cause perforation and scarring.

Skin contact: Corrosive to body tissue, causing burns, deep ulceration, and scarring. Frequent contact with lower concentrations may cause eczema. Eye contact Corrosive to eyes, may cause severe corneal damage, reduced vision, or even blindness.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Spillage will cause localised damage to animals and plants on the ground. Do not allow release into controlled waters; resulting high pH will affect aquatic life forms. If allowed to enter drains will damage effluent treatment organisms. Neutralisation and dilution will greatly reduce these effects. Product is chemically degradable into sodium carbonate.

Toxicity:

LC 50, 96 Hrs, Fish mg/l: >100
EC 50, 48 Hrs, Daphnia mg/l: 0.72
IC 50, 72 Hrs, Algae mg/l: 0.97

Persistence and degradability:

Degradability: The product is degraded completely by hydrolysis.

Bioaccumulative potential: Bioaccumulation factor BCF 36

Mobility in soil:

Results of PBT and vPvB assessment: Not Classified as PBT/vPvB by current EU criteria.

Other adverse effects:

[cont...]

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Do not dispose directly into rivers or drains Spills should be contained, then neutralised by careful addition of a dilute acid such as hydrochloric acid. The resulting alumina suspension may be regarded as neutral waste, and disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

UN number:

UN No. (ADR/RID/ADN): 1819

UN proper shipping name:

Proper Shipping Name: SODIUM ALUMINATE SOLUTION

Transport hazard class (es):

ADR/RID/AND class: Class 8: Corrosive substances.

Transport Labels:



Packing group:

ADR/RID/ADN Packing group: II

Environmental hazards:

Special precautions for user:

Hazard No. (ADR): 80 Corrosive or slightly corrosive substance.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

15. REGULATORY INFORMATION

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

Chemical Safety Assessment: No chemical safety assessment has been carried out.

Note:

The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Risk Phrases in full: R35: Causes severe burns.
NC: Not classified.
R41: Risk of serious damage to eyes.

Hazard Statements in full Causes: H318: Serious eye damage.
H314: Causes severe skin burns and eye damage.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.