SAFETY DATA SHEET
SODIUM HYDROXIDE PELLETS AR

According to Regulation (EC) No 1907/2006, Annex II

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

1.1. Product identifier

Product name	SODIUM HYDROXIDE PELLETS AR
Product number	1547
REACH registration number	01-2119457892-27-XXXX
CAS number	1310-73-2
EU index number	011-002-00-6
EC number	215-185-5

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

Identified uses	Laboratory reagent. For use in industrial installations or professional treatment only.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Reagent Chemical Services
18 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)
F: 01928 716425
E: info@reagent.co.uk

1.4. Emergency telephone number

Emergency telephone	OHES Environmental Ltd 24-7 Tel. 0333 333 9939 (24 hour)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Met. Corr. 1 - H290
Health hazards	Skin Corr. 1A - H314 Eye Dam. 1 - H318
Environmental hazards	Not Classified

2.2. Label elements

EC number	215-185-5

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Pictogram

Signal word	Danger
Hazard statements	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.
Precautionary statements	P260 Do not breathe dust. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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/ doctor. P321 Specific treatment (see medical advice on this label). P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/ container in accordance with regional regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Immediate first aid is imperative. Show this Safety Data Sheet to the medical personnel.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.
Skin contact	Immediately remove contaminated clothing. Rinse immediately with plenty of water. Get medical attention immediately.
Eye contact	Rinse with water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Acute: Coughing. Irritation of the respiratory system. Delayed: Prolonged or repeated exposure to dusts may cause burns to the respiratory system with the possibility of lung edema.

Ingestion Acute: Burns in the mouth, throat, stomach and gastrointestinal tract. Risk of perforation. Delayed: Scarring of the digestive system with possible blockages due to internal damage. Coma and death can occur following severe exposure.

Skin contact Acute: Chemical burns. Delayed: Scarring of the skin.

Eye contact Acute: Severe burns. Delayed: Permanent eye damage. Possible blindness.

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

Notes for the doctor Have eye wash facilities in place close to the operators' work area to provide immediate first aid prior to medical attention. All cases of exposure require immediate medical attention.

Specific treatments No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.

Unsuitable extinguishing media Do not use water, if avoidable.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Hydrogen. Oxides of the following substances: Sodium.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Fight fire from safe distance or protected location. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear chemical protective suit. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust and contact with skin and eyes. Wash thoroughly after dealing with a spillage.

For emergency responders Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

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Environmental precautions Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Do not touch or walk into spilled material. Avoid generation and spreading of dust. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin, eyes and clothing. Do not breathe dust. Wash hands thoroughly after handling.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Provide eyewash station. Wash hands thoroughly after handling. Contaminated clothing should be placed in a closed container for disposal or decontamination. Warn cleaning personnel of any hazardous properties of the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place. Protect containers from damage.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit

DNEL Workers - Inhalation; Long term local effects: 1 mg/m³
General population - Inhalation; Long term local effects: 1 mg/m³

8.2. Exposure controls

Protective equipment

Appropriate engineering controls Provide adequate general and local exhaust ventilation.

Eye/face protection Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated. Personal protective equipment for eye and face protection should comply with European Standard EN166.

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Hand protection	Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374. The breakthrough time for any glove material may be different for different glove manufacturers. For exposure up to 8 hours, wear gloves made of the following material: Neoprene. Butyl rubber. Viton rubber (fluoro rubber). Thickness: ~ 0.45 mm
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Contaminated clothing should be placed in a closed container for disposal or decontamination.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Particulate filter, type P2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Check that the respirator fits tightly and the filter is changed regularly.
Environmental exposure controls	Store in a demarcated bunded area to prevent release to drains and/or watercourses.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Solid
Colour	White.
Odour	Odourless.
Odour threshold	No specific test data are available.
pH	pH (diluted solution): 14.5 5%
Melting point	318°C
Initial boiling point and range	1390°C @ 760 mm Hg
Flash point	Scientifically unjustified.
Evaporation rate	No specific test data are available.
Flammability (solid, gas)	Technically not feasible.
Upper/lower flammability or explosive limits	Scientifically unjustified.
Vapour pressure	1 mbar @ 700°C
Vapour density	Scientifically unjustified.
Relative density	No specific test data are available.
Bulk density	~ 2130.0 kg/m³
Solubility(ies)	Soluble in water.
Partition coefficient	No specific test data are available.
Auto-ignition temperature	No specific test data are available.
Decomposition Temperature	No specific test data are available.

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Viscosity	Technically not feasible.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Particle size	No specific test data are available.
Molecular weight	40

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react violently with the product: Strong acids. Powdered metal. Strong oxidising agents.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Reacts strongly with water. Reacts violently with strong acids.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with acids. Avoid contact with strong oxidising agents. Never add water directly to this product as it may cause a vigorous reaction or boiling. Reacts strongly with water.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Strong acids. Strong alkalis. Alkaline earth metals. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of the following substances: Sodium. Hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Causes severe skin burns and eye damage.

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} 325 mg/kg, Oral, Rabbit REACH dossier information.

Acute toxicity - dermal

Notes (dermal LD_{50}) Conclusive data but not sufficient for classification. REACH dossier information.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) 750 µg/L, Inhalation, Rat REACH dossier information.

Skin corrosion/irritation

Skin corrosion/irritation Corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Corrosivity to eyes is assumed. REACH dossier information.

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Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Genotoxicity - in vivo This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Burns can occur.

Ingestion This product is strongly corrosive. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact This product is corrosive. Causes severe burns.

Eye contact Causes severe burns. Causes serious eye damage. Immediate first aid is imperative.

Acute and chronic health hazards This product is corrosive.

Route of entry Skin and/or eye contact Ingestion

Target organs Skin Eyes Respiratory system, lungs Gastro-intestinal tract

Medical symptoms Chemical burns.

SECTION 12: Ecological Information

Ecotoxicity The ecotoxicity of this substance has been assessed during REACH registration

12.1. Toxicity

Acute toxicity - fish LC_{50}, 96 hours: 45.4 mg/l, Onchorhynchus mykiss (Rainbow trout)
Supplier's information.

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 40.4 mg/l,

Short term toxicity - embryo and sac fry stages Not available.

12.2. Persistence and degradability

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Persistence and degradability The product contains inorganic substances which are not biodegradable.

Stability (hydrolysis) Scientifically unjustified.

Biological oxygen demand No information available.

Chemical oxygen demand No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient No specific test data are available.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

Adsorption/desorption coefficient Scientifically unjustified.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

Disposal methods Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1823

UN No. (IMDG) 1823

UN No. (ICAO) 1823

UN No. (ADN) 1823

14.2. UN proper shipping name

Proper shipping name (ADR/RID) SODIUM HYDROXIDE, SOLID

Proper shipping name (IMDG) SODIUM HYDROXIDE, SOLID

Proper shipping name (ICAO) SODIUM HYDROXIDE, SOLID

Proper shipping name (ADN) SODIUM HYDROXIDE, SOLID

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C6

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ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

IMDG Code segregation group	18. Alkalis
EmS	F-A, S-B
ADR transport category	2
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). Health and Safety at Work etc. Act 1974 (as amended).
EU legislation	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) (as amended). 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 (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40.

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Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. DNEL: Derived No Effect Level. DMEL: Derived Minimal Effect Level. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
Classification abbreviations and acronyms	Eye Dam. = Serious eye damage Skin Corr. = Skin corrosion Met. Corr. = Corrosive to metals
General information	Only trained personnel should use this material.
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Classification procedures according to Regulation (EC) 1272/2008	Skin Corr. 1A - H314, Met. Corr. 1 - H290, Eye Dam. 1 - H318: Weight of evidence., On basis of test data.
Revision date	11/11/2017
Revision	2
Supersedes date	07/12/2012
SDS number	20464
SDS status	Approved.
Hazard statements in full	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.