

**1. Identification of Substance and Company Data**

<b>Product Name:</b>	<b>Papermaking Sludge Ash (PSA)</b>
<b>Product Use:</b>	Additive for Cementitious Processes Lime Replacement (sewage sludge stabilisation, soil conditioners and slag in steel manufacture)
<b>Supplier:</b>	Aylesford Newsprint Ltd. Newsprint House Bellingham Way Aylesford Kent ME20 7DL
<b>Emergency Telephone Number:</b>	01622 796999 Out of Office Hours: 01622 796063

**2. Composition/Information on Ingredients**

The principal constituents of PSA are oxides of calcium, silicon aluminium and magnesium. Subsidiary amount of the major ion oxides of iron, sulphur, potassium sodium and phosphorus are also present. Trace amounts of heavy metals are present but all concentrations are well below thresholds for hazardous properties.

Element	Concentration	CAS no
Calcium Oxide (CaO)	<60%	1305-78-8
Silicon Dioxide (SiO <sub>2</sub> )	<28%	7631-86-9
Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> )	<15%	1344-28-1
Magnesium Oxide (MgO)	<7%	1309-48-4

### 3. Hazards identification

<b>Physical/Chemical Hazards</b>	The material is classified as hazardous due to it being a corrosive when applying the alkali reserve test. The material exhibits a very high pH.	Risk Phrase  R34 R36 R37 R38 R41
<b>Human Health Hazards</b>	An irritant to eyes and skin. Risk of serious damage to eyes. Contact with unprotected skin can produce burns. Generates heat in contact with water due to an exothermic reaction as the oxides hydrate. Harmful if swallowed.	
<b>General Hazards</b>	<i>Medical conditions generally aggravated by exposure:</i> Respiratory disorders and dermatitis or other skin disorders may be aggravated by exposure.	
<b>Environmental Hazards</b>	Unlikely to have a harmful impact upon the environment.	

### 4. First Aid Measures

<b>Skin Contact</b>	Irritant - may cause burns in the presence of moisture. Remove contaminated clothing and wash affected area immediately with large amounts of water.
<b>Eye Contact</b>	Irritant wash eyes immediately with large amounts of water, occasionally lifting the upper and lower lids, until no evidence of material remains (approximately 15-20 minutes). Get medical attention immediately.
<b>Inhalation</b>	If inhaled remove from exposure; move to fresh air immediately and irrigate nose and throat with water for at least 20 minutes. If necessary seek medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Wash mouth with water and drink copious quantities of water. Seek medical advice if in doubt. If large quantities of this material are swallowed, seek medical advice.
<b>Notes on Medical Treatment</b>	Treatment should in general be symptomatic and directed towards relieving any effects. Effect will be similar to those caused by exposure to Calcium Oxide.

### 5. Fire Fighting Measures

The material is not considered to be flammable and will not facilitate combustion with other materials.  
**Firefighting Media:** Dry chemical, carbon dioxide, water spray or foam. The material reacts exothermically with water and generates heat.

**Unusual Fire and Explosion Hazards:** None.

## 6. Accidental Release Measures

Recover the spillage in a dry state, if possible as described in Section 7. Minimise generation of airborne dust. Spills should not be flushed to surface waters or sewers. Dispose of in accordance with all applicable regulatory requirements and controls.

## 7. Handling and Storage

**Handling** Wash hands thoroughly after handling. Use protective equipment as described in Section 8

**Storage** Ensure PSA is stored in a dry area away from water and moisture.

## 8. Exposure Control/Personal Protection

### Control Measures

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of dust below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation for immediate use if required.

### Hygiene Measures

Wash hands after handling compounds and before eating, smoking, using lavatory and at the end of the day.

### Personal Protective Equipment



**9. Physical and Chemical Properties**

<b>Colour</b>	White to Grey
<b>Odour</b>	Odourless
<b>Physical State</b>	Powder
<b>PH</b>	Alkaline in water (pH >11.5)

**10. Stability and Reactivity**

<b>Stability</b>	Stable under normal temperatures and pressures. Calcium oxide present within the PSA will gradually absorb carbon dioxide when exposed to air, forming calcium carbonate. This process will result in the lowering of pH when exposed to water and moisture and make the material non hazardous with time.
<b>Incompatibility with Various Substances (Material to avoid)</b>	Reacts violently with acids to form stable salts, reacts vigorously with water, and generates intense heat.
<b>Hazardous Complexity</b>	Will not occur.
<b>Hazardous Products of Degradation</b>	Non hazardous when left to react with Carbon dioxide in air.
<b>Special Precautions Required</b>	Not Applicable.

**11. Toxicological Information**

<b>Acute Toxicity</b>	<p>Short term exposure times are unlikely to cause more than a transient irritation if accidental eye contact occurs.</p> <p>Unlikely to cause harm to the skin on brief or occasional contact.</p> <p>Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause corrosion damage to the gastrointestinal tract.</p> <p>At any temperature this product will be unlikely to present an inhalation hazard. However, prolonged unprotected exposure to the PSA dust material can cause respiratory irritation.</p>
<b><u>Chronic Toxicity</u></b>	<p>Prolonged and repeated skin contact may lead to dermatitis.</p>

**12. Ecological Information**

<b>Persistence/Degradability</b>	Non biodegradable. Reacts with moisture to form hydroxides, reacts with atmospheric CO <sub>2</sub> to form stable carbonate salts.
<b>Mobility</b>	Spillages will not penetrate the soil and has low mobility in most ground conditions.
<b>Bio-accumulative Potential</b>	This material is not expected to bio-accumulate through food chains in the environment.
<b>Environmental Hazards</b>	Unlikely to be harmful to aquatic organisms.
<b>Other Ecological Information</b>	Spillages may increase the turbidity of water potentially impairing oxygen transfer.

**13. Disposal Considerations**

<b>Disposal Methods</b>	Disposal of waste and residues in accordance with local authority requirements.
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**14. Transport Information**

<b>General</b>	This product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID). No transport warning sign required.
<b>Road Transport Notes</b>	Calcium Oxide not Subject to ADR
<b>Rail Transport Notes</b>	Not Classified
<b>Sea Transport Notes</b>	Not Classified
<b>Air Transport Notes</b>	Not Classified

**15. Regulatory Information****Labelling****Risk Phrases**

Irritant  
 R34 – Causes burns  
 R36 – Irritating to eyes  
 R37 – Irritating to respiratory system  
 R38 – Irritating to skin  
 R41 – Risk of serious damage to eyes

**Safety Phrases**

S24/25 – Avoid contact with skin and eyes  
 S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection

**Statutory Instruments**

European/International Regulations including:

- Chemicals (Hazard Information and Packaging for Supply) Regulations
- *European Labelling in Accordance with EC Directives*
- Health & Safety at Work, etc. Act 1974
- Control of Substances Hazardous to Health Regulations (COSHH) 2002
- Control of Substances Hazardous to Health (Amendment) Regulations 2004
- Environmental Protection Act 1990
- HSE Guidance Note EH40 (Workplace Exposure Limits)
- Manual Handling Operations Regulations 1992 (as amended)

**16 Other Information****History**

Date of Issue 17<sup>th</sup> September 2010  
 Date of Previous Issue 21<sup>st</sup> November 2009  
 Prepared by Wayne Davies Technical Director RPS

**Notice to Reader**

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Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. Aylesford Newsprint Ltd. Shall not be held responsible for any damage or injury resulting from abnormal use of the material or from any failure to adhere to recommendations or from hazards inherent in the nature of the material.