

Material Safety Data Sheet

SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: A+ 35

Part Number: None

Chemical Family: Alkaline Earth Hydroxide

Manufacturer's Name: Siemens Water Technologies Corp.

Address: 2650 Tallevast Road, Sarasota, FL 34243

Product/Technical Information Phone Number: 1.941.355.2971

Medical/Handling Emergency Phone Number: CHEMTREC 1.800.424.9300

24 hours a day everyday

Transportation Emergency Phone Number: CHEMTREC 1.800.424.9300

24 hours a day everyday

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SECTION 2 – COMPOSITION INFORMATION

<u>Chemical Name</u>	<u>Percent by Weight</u>	<u>CAS#</u>
Calcium Hydroxide	20-55	1305-62-0
Magnesium Hydroxide	<5	1309-42-8
Silicon Dioxide	<2	14808-60-7
Water	Balance	7732-18-5

SECTION 3 – HAZARDS IDENTIFICATION

Appearance & Odor: White, low viscosity, odorless liquid.

Emergency Overview: This material is an irritant and may burn the skin and eyes. Spills of this material will make the floor slippery. Do not allow this material to evaporate to dryness because the residue contains small quantities of crystalline silica, a respiratory cancer hazard if airborne.

Fire & Explosion Hazards: This material is not flammable.

Primary Route(s) of Exposure: Skin and eye contact, vapor and mist inhalation.

Inhalation – Acute Effects: This material may cause severe irritation of the respiratory system in mist or dry form. Long term exposure may cause permanent damage.

Skin Contact – Acute Effects: This material may irritate the skin.

Eye Contact – Acute Effects: This material may cause severe irritation of the eyes including permanent damage.

Ingestion – Acute Effects: Ingestion may cause severe irritation or burning of the gastrointestinal system. Ingestion of large quantities may be fatal.

SECTION 4 – FIRST AID MEASURES

Inhalation First Aid: Remove affected person to fresh air. Give artificial respiration ONLY if breathing has stopped. Obtain medical attention if individual shows symptoms of exposure.

Skin Contact First Aid: Immediately remove clothing from affected area and wash skin with flowing water for 15 minutes. Clothing must be washed before reuse. Obtain medical attention if irritation occurs.

Material Safety Data Sheet

Eye Contact First Aid: Immediately irrigate eyes with flowing water for 15-20 minutes while holding eye lids open. Contacts should be removed before or during flushing. Obtain immediate medical attention.

Ingestion First Aid: DO NOT induce vomiting. If spontaneous vomiting occurs, have affected person lean forward with head down to maintain an open breathing passage. Obtain medical attention immediately.

Medical Conditions Aggravated: Contact may aggravate disorders of the eyes, skin, gastrointestinal, and respiratory system.

Note to Physician: Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point/Method: Not applicable.

Auto Ignition Temperature: Not applicable.

Upper/Lower Explosion Limits: Not applicable.

Extinguishing Media: Use extinguishing media suitable for surrounding fire. Do not use water or halogenated compounds. Large amounts of water may be used to deluge small quantities of this material.

Fire Fighting Procedures: As with any fire, fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. This product becomes a fire or explosion hazard if allowed to dry, so use water spray to keep fire-exposed containers cool.

Fire & Explosion Hazards: May be combustible at high temperatures or if the liquid is allowed to evaporate. Contact with acids may generate enough heat to ignite nearby combustible materials. Contact with metals such as aluminum, tin, or zinc will generate heat and liberate flammable hydrogen gas.

Hazardous Products of Decomposition and/or Combustion: If this product evaporates to dryness, the residue will contain small quantities of crystalline silica, a respiratory cancer hazard if allowed to become airborne.

NFPA Ratings:

HEALTH - 1

FLAMMABILITY – 0

REACTIVITY - 0

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment (see Section 8). Stop leak if safe to do so without risk. Do not use water on bulk material spills. Do not clean up with compressed air. Store collected materials in sealed plastic or non-aluminum metal containers. Residue on surfaces may be water washed.

If this material evaporates to dryness, minimize dust generation during clean up and prevent bulk release to sewers or waterways.

Residual amounts of material can be flushed with large amounts of water. Equipment can be washed with either a mild vinegar and water solution or detergent and water.

Material Safety Data Sheet

All disposal methods must be in compliance with all Federal, State, Local and Provincial laws, and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 7 – HANDLING AND STORAGE

Handling: Keep in tightly closed plastic or non-aluminum metal containers. Protect containers from physical damage. Avoid direct skin contact with the material. Wash hands after handling this material.

Storage: Store in cool, dry, and well ventilated location. Do not store near acids or other incompatible materials. Keep away from moisture. Do not store or ship in aluminum containers.

SECTION 8 –PERSONAL PROTECTION/ EXPOSURE CONTROL

Respiratory Protection: None required under normal use conditions. If use conditions generate mists, wear a NIOSH approved respirator with ammonia gas cartridges.

Skin Protection: Wear protective gloves and other protective clothing as appropriate to prevent skin contact.

Eye Protection: Wear safety glasses with side shields for normal operating conditions. Wear chemical safety goggles if use conditions generate splashes, mists, or sprays. Contact lens should not be worn when working with this product.

Ventilation Protection: General exhaust ventilation is usually adequate under normal operating conditions. However, if use conditions generate mists or sprays, use local exhaust ventilation.

Other Protection: Recommend means of washing the eyes with a gentle flow of cool to tepid water be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of this product.

Exposure Limits: Occupational exposure limits have not been established for this material. However, for calcium hydroxide and crystalline silica, two components of this material:

<u>Component</u>	<u>Exposure Limits, mg / m³</u>			
	<u>OSHA PEL</u>	<u>OSHA STEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>
Calcium hydroxide	15 (total dust) 5 (resp)	5	5	5
Crystalline silica	10 / SiO ₂ % +2 (resp)	---	0.025	---

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: White, low viscosity, odorless liquid.

Boiling Point: 100 °C

pH: 12.4

Specific Gravity: 1.2 – 1.5

Solubility in Water: < 1%

Material Safety Data Sheet

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable.

Incompatibilities: This material should not be mixed or stored with the following materials due to the potential for vigorous reaction and release of heat: acids, reactive fluorinated or brominated compounds, powdered metals, acid anhydrides, nitro-organic compounds, reactive phosphorous compounds, and halogenated compounds.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: If this material evaporates to dryness, the residue will contain small quantities of crystalline silica, a respiratory cancer hazard if allowed to become airborne.

Conditions to Avoid: Avoid exposure to extreme temperatures and contact with incompatible materials.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicological Data: There are no toxicological data available for this material. However, for solid calcium hydroxide, a component of this material:

Oral LD 50 (rat) = 7340 mg / kg.

Eye irritation (Draize, rabbit) = 10 mg (severe)

Carcinogenicity / Mutagenicity: No carcinogenic or mutagenic properties of this product are known. However, crystalline silica, a minor component of this product, is classified by IARC as a Group I carcinogen when respirable.

Reproductive Effects: No reproductive effects of this product are known.

Neurotoxicity: No neurotoxic effects of this product are known.

Other Effects: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicological Information: This material exhibits a high pH so high concentrations would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Environmental Fate: This material shows no bioaccumulation effect or food chain concentration toxicity.

SECTION 13 – DISPOSAL CONSIDERATIONS

Contains no hazardous substances as listed in 40 CFR 302

Material that cannot be used, or reprocessed for use, and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations. NOTE: State and local regulations may be more stringent than federal regulations.

Material Safety Data Sheet

SECTION 14 – TRANSPORTATION INFORMATION

Domestic Transportation: This material is not a hazardous material for transportation purposes and is not regulated by US DOT when shipped domestically.

International Transportation: This material is not a dangerous good for transportation purposes and is not regulated when shipped according to ICAO, IATA, or IMDG requirements.

SECTION 15 – REGULATORY INFORMATION

OSHA Hazard Communication: Health hazard

OSHA Process Safety Management: no

U.S. Federal Regulations:

CERCLA Hazardous Substance: no

SARA Hazard Categories:

Acute health: yes

Chronic health: no

Fire: no

Pressure release: no

Reactivity: no

California Proposition 65: Crystalline silica, a trace component of this material, is listed on the Proposition 65 list.

SECTION 16 – OTHER INFORMATION

Disclaimer: The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial and local laws.