


Section 1. Identification

Common Name	ActiveGel, Sodium in Silica Gel (Stage I)
Recommended Uses and Restrictions on Uses	Ideal for chemical reactions that need the reducing ability of alkali metals in an easily handled form. Can produce clean hydrogen by reaction with water. Useful for batch, or continuous, reduction of organic and inorganic compounds (Birch and Wurtz reactions, desulfurization, cleavage of functional groups such as C-X, C-S, C=O, etc.)
Supplier/Manufacturer	SiGNa Chemistry, Inc. 400 Madison Avenue, 22 nd Floor, New York, NY 10017 Tel: 1 (212) 933-4101; Fax: 1 (212) 208-2605 Email: safety@signachem.com
In case of emergency	CHEMTREC (24 Hour Emergency Telephone) USA and Canada Call: 1-800-424-9300 CHEMTREC Call: 1-703-527-3887

Section 2. Hazards Identification

GHS Classification	Substances which in contact with water release flammable gases; Category 2 Skin corrosion/irritation; Category 1B Serious eye damage/eye irritation: Category 1
GHS Label Requirements	
Signal Word	DANGER
	
Hazard Statements	In contact with water releases flammable gases. Causes severe skin burns and eye damage.
Precautionary Statements	
Prevention	Do not allow contact with water. Handle under inert gas. Protect from moisture. Do not breathe dusts or mists. Wash hands and forearms after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	Brush off loose particles from skin and immerse in cool water/wrap in wet bandages.

	<p>In case of fire: Use Class “D” fire extinguisher, dry sand or earth, soda ash, powdered sodium chloride, or other suitable dry powder to isolate from air to extinguish.</p> <p>If swallowed: Rinse mouth. Do NOT induce vomiting.</p> <p>If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.</p> <p>If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.</p>
Storage	<p>Store locked up.</p> <p>Store in a dry place.</p> <p>Store in a closed container</p>
Disposal	<p>Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.</p>
Hazards Not Otherwise Classified (HNOC)	<p>None</p>

Section 3. Composition, Information on Ingredients

Chemical Identity/ Common Name	CAS Number	% by weight	Description
Synthetic amorphous silica, precipitated	112926-00-8	60 – 70	Amorphous solid powder – brown to black
Sodium	7440-23-5	30 – 40	

Section 4. First aid measures

Eye Contact	<p>In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.</p>
Skin Contact	<p>In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.</p>
Inhalation	<p>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.</p>

Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Notes to physician	No specific antidote. Medical staff must contact Poison Control Center.

Section 5. Firefighting measures

Suitable Extinguishing Media and Instructions	Use Class “D” fire extinguisher, dry sand or earth, soda ash, powdered sodium chloride, or other suitable dry powder. Do not use water or carbon dioxide. Do not use halogenated hydrocarbons. Will react with water or steam to produce hydrogen gas and liberate heat.
Specific Hazards Arising from the Material	Some metallic oxides. Flammable in presence of open flames, sparks and static discharge. Slightly flammable to flammable in presence of heat.
Special Protective Equipment	Self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure, flame retardant clothing, impermeable gloves

Section 6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures	Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Do not touch or walk through spilled material. Wear impermeable gloves, safety glasses, and half or full face air purifying respirator.
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Methods for Containment and Clean Up	If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal.

Section 7. Handling and storage

Procedures for Safe Handling	Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe dust. Keep away from heat, sparks and flame. Will react with water or steam to produce heat and hydrogen gas. Wash thoroughly after handling.
Procedures for Safe Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

Section 8. Exposure Controls, Personal Protection

Appropriate Engineering Control Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Chemical Product Name (United States)

Exposure limits

Synthetic amorphous silica, precipitated

ACGIH TLV (United States, 1/2004).
TWA: 10 mg/m³ 8 hour(s). Form: Gel
TWA: 10 mg/m³ 8 hour(s). Form: All forms.
OSHA PEL (United States)
TWA: 80/%SiO₂ mg/m³ (8 hour)

Individual Protection Measures – Personal Protective Equipment

Eyes

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Recommended: Safety glasses.



Respiratory

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: Dust respirator.



Hands

Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour(s) (breakthrough time): Nitrile gloves.



Skin/Body

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Body: Recommended: Lab coat or overall.
Feet: Recommended: Shoes



Personal Protection In Case of a Large Spill

Safety glasses, goggles or face shield. Impervious gloves.

Section 9. Physical and chemical properties

Appearance	Brown to black solid powder
Odor	Not determined
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	Not determined
Initial Boiling Point	Not determined
Boiling Range	Not determined
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability	Not determined: Can be ignited with flame.
Upper flammability/explosive limit	Not applicable
Lower flammability/explosive limit	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	Not determined
Solubility	Reacts with water to form hydrogen and sodium hydroxide.
Partition Coefficient	Not applicable
Auto-ignition Temperature	Lowest known value is 120 to 125°C. (248 to 257°F.) (Sodium Potassium Alloy)
Decomposition Temperature	Not applicable
Viscosity	Not applicable

Section 10. Stability and reactivity

Reactivity	Can be reactive at very high temperatures or in the presence of water or humid air.
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Stability	This product is stable
Possibility of Hazardous Reactions	Reactive or incompatible with liquid water. Reacts with water vapor. Reactive with oxidizing agents, acids. The product reacts with water to emit flammable but non-toxic gases.
Conditions to Avoid	Very high temperatures or the presence of water and humid air
Incompatibility with Materials	Water, water vapor, acids, oxidizing agents
Hazardous Decomposition Products	Some alkali sodium hydroxide

Section 11. Toxicological Information

Likely Routes of Exposure	Skin, Eyes, Inhalation
Acute Effects	
Eyes	Corrosive to the eyes.
Skin	Corrosive to the skin.
Inhalation	Corrosive to the respiratory system.
Ingestion	May cause burns to mouth, throat and stomach.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified 3 (Not classifiable for human.) by IARC [Synthetic amorphous silica, precipitated]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

Section 12. Ecological Information

Ecotoxicity	Not determined, reacts with water forming hydrogen and sodium hydroxide.
Persistence and Degradability	Not determined
Bioaccumulation Potential	Not determined
Mobility in Soil	Not determined
Other Adverse Effects	Not determined

Section 13. Disposal considerations

Waste Disposal

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

Section 14. Transportation Information

UN Number	UN 3131
UN Proper Shipping Name	Water Reactive Solid, corrosive, n.o.s. (Sodium in Silica gel)
Transport Hazard Class(es)	4.3, 8
Packing Group	II
Environmental Hazards	None known
Placards	Dangerous When Wet and Corrosive



Special Precautions	None
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Section 15. Regulatory Information

United States

HCS Classification	Water reactive material Corrosive material
U.S. Federal Regulations	TSCA : All components listed. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: Sodium SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium-potassium alloy: Fire hazard, reactive, Immediate (Acute) Health Hazard

State Regulations

Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.

Pennsylvania RTK: Sodium metal: (generic environmental hazard).

Massachusetts RTK: Synthetic amorphous silica, precipitated; Sodium metal.

New Jersey: Sodium metal.

Section 16. Other information

HMIS Codes Health: 3 Flammability: 3 Reactivity: 2

NFPA Codes Health: 3 Flammability: 3 Instability: 2 Special *W*

Prepared by SiGNa Chemistry

Date of Issue 03/31/2005

Date of Revision 08/10/2018

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.