


SAFETY DATA SHEET

Version 1.1

Revision Date 02/01/2017

1. Product and Company Identification	
Product Name	Silica gel GF, Silica gel GHLF
Product Number	B02xxx, P02xxx, P19xxx, P21xxx, P26xxx, P40xxx, P57xxx, R02xxxx, (where xxx=package size)
Identified Uses	Laboratory chemicals
Brand	Analtech
Company	Miles Scientific (Analtech) 75 Blue Hen Drive Newark, DE 19713
Telephone	1 800 441-7540
Emergency Telephone	1 302 737-6960 (Mon-Thur, 7am-5pm EST)

2. Hazard Identification	
Classification	
Acute toxicity, inhalation	Category 4, harmful if inhaled (H332)
Eye Irritation	Category 2A, causes serious eye irritation (H319)
Specific target organ toxicity	Category 3, may cause respiratory irritation (H335)
GHS Label Elements	 <div style="float: right; text-align: center;">Warning</div>
Hazards Not Otherwise Classified (HNOC)	Above hazard classification relates to CAS# 68611-47-2. This component being present in minor amounts and bound within a matrix is thought to present a lesser degree of risk.
	Product is very adsorbent and may have a drying effect on skin and eyes. When exceeding the OEL (Occupational Exposure Limit), a mechanical overburdening of the respiratory system is possible.

P261 - Avoid breathing mist/vapors/spray	P240+P233 - Store in a well ventilated place. Keep closed.
P264 - Wash face, hands and exposed skin thoroughly after handling	P305+P340+P338 - If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if possible.
P271 - Use in a well-ventilated area	P304+P340+p321 - If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a doctor if you feel unwell.
P280 - Use personal protective equipment as required	
P(377+P313) - If eye irritation persists, get medical attention	P501 - Dispose of contents/container to an approved waste disposal plant.

3. Composition / Information on Ingredients				
Component	CAS Number	EC Number	Classification	Concentration
Silica, amorphous	7631-86-9	231-545-4	----	55-90 %
Calcium Sulfate Hemihydrate	10034-76-1	231-900-3	----	10-42 %
Zinc Orthosilicate (Manganese doped)	68611-47-2	271-896-0	Acute Tox. 4; Eye Irrit. 2A; STOT SE 3; H319, H332, H335	2-5 %

4. First Aid Measures	
After Inhalation	Move to fresh air, give artificial respiration if breathing has stopped
After skin contact	Wash with soap and water
After eye contact	Flush with water for at least 30 minutes. If eye irritation persists get medical advice/attention.
After ingestion	Rinse mouth with water, do not induce vomiting, seek medical attention
General advice	Material has a drying effect, prolonged contact may cause irritation. If symptoms persist, consult a physician.

5. Fire Fighting Measures	
Suitable extinguishing media	Water, foam, carbon dioxide, dry chemical
Hazardous combustion products	Sulfur oxides, calcium oxide, potential unknown decomposition products
Protective equipment	Wear personal protective equipment, wear self-contained breathing apparatus if necessary
Additional information	Dispose of fire debris in accordance with official regulations

6. Accidental Release Measures	
Personal precautions	Avoid dust formation, wear protective clothing, ensure adequate ventilation
Environmental precautions	Damp down dust with water spray, contain contaminated water and dispose
Methods, materials for containment and clean-up	Vacuuming or wet sweep to avoid dust dispersal
Reference to other sections	No dangerous substances are released

7. Handling and Storage	
Precautions for safe handling	Prevent formation of dust, provide appropriate exhaust ventilation, use proper grounding when transferring into flammable solvents
Conditions for safe storage	Keep receptacles tightly closed, store in dry conditions, product is hygroscopic

8. Exposure Controls / Personal Protection		
Component	Value	Concentration
Silica, amorphous	CAS Number:7631-86-9	55-90 %
IDLH: Immediately Dangerous to Life or Health	Short term value: 3000 mg / m ³	
PEL: OSHA TWA for amorphous silica	Long term value: 80 mg / m ³	
REL: NIOSH TWA	Long term value: 6 mg / m ³	
TLV: ACGIH TWA	Long term value: 10 mg / m ³ (total dust), 5 mg / m ³ {respirable fraction}	
Component	Value	Concentration
Calcium Sulfate Hemihydrate	CAS Number: 10034-76-1	10-42 %
PEL: OSHA TWA	Long term value: 15 mg / m ³	
REL: NIOSH TWA	Long term value: 5 mg / m ³	
TLV: ACGIH TWA	Long term value: 10 mg / m ³	
Component	Value	Concentration
Zinc Orthosilicate (Manganese doped)	CAS Number: 68611-47-2	2-5 %
PEL: OSHA, ceiling limit	5 mg / m ³ , table Z-1 limits for air contaminants (breathing zone air samples)	
REL: NIOSH TWA, ST	Long term value (TWA): 1 mg / m ³ , Short Term (ST): 3 mg / m ³	
TLV: ACGIH TWA	Long term value: 0.2 mg / m ³	
Central Nervous System Impairment 2015 Adoption	varies, not classifiable as a human carcinogen varies	
PEL: OSHA, ceiling limit	5 mg / m ³ , table Z-1 limits for air contaminants (breathing zone air samples)	
REL: NIOSH TWA, ST	Long Term Value (TWA): 1 mg / m ³ , Short Term (ST): 3 mg / m ³	
TLV: ACGIH TWA	Long term value: 0.1 mg / m ³	
TLV: ACGIH TWA	Long term value: 0.02 mg / m ³	

Eye/face protection	Use equipment for eye protection tested and approved under NIOSH or EN 166
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique. Material: butyl rubber (BR), nitrile rubber (NBR), thickness ≥ 0.11 mm
Body protection	Protective work clothing
Respiratory protection	Not required. Where protection from nuisance levels of dust is desired, use type N95 (US) or P1 (EN 143).

9. Physical and Chemical Properties					
Appearance:	White powder	Flash point:	Not available	Lower explosion limit:	Not available
Odor:	Odorless	Flammability:	Not flammable	Upper explosion limit:	Not available
Odor threshold:	Not available	Ignition temperature:	Not available	Vapor pressure at 20°C:	--hPa
pH value at 20 °C:	4.0 – 9.0	Decomposition temp:	Not available	Density at 20 °C:	2.17-2.20 g/cm ³
Melting point:	> 1700 °C	Auto igniting:	Not self-igniting	Bulk Density at 20 °C:	200-600 kg/m ³
Boiling point:	> 1700 °C	Danger of Explosion:	No explosion hazard	Evaporation Rate:	Not applicable

10. Stability and Reactivity	
Reactivity	No data available
Chemical stability	Stable in designed use
Hazardous reactions	None know
Conditions to avoid	No data available
Incompatible materials	Strong oxidizing agents, strong acids, hydrogen fluoride
Hazardous decomposition products	No data available

11. Toxicological Information	
LD50/LC0 - oral, dermal, inhalative	>5000 mg/kg (rat OECD 401), >6000 mg/kg (rabbit), >140-2000 mg/m ³ /4h (rat OECD 403)
Primary irritant effect - skin, eyes	0 (rabbit OECD 404), 0 (rabbit OECD 405)
Sensitization - respiratory, skin	No data available, no data available
Carcinogenic categories	IARC – group 3, not classified
	NTP - substance is not listed
	OSHA - substance is not listed
Repeated dose toxicity	Oral NOAEL 90d = 9000 mg/kg bw/day (rat OECD 408)
	Inhalative NOAEC 90d = 1 mg/m ³ (rat OECD 413)
Mutagenicity	>5 mg/plate (in-vitro OECD 471), negative with and without metabolic activation (ECHA 2012)
Reproductive toxicity, oral	1350 mg/kg bw/day (rat OECD 414), 1350 mg/kg bw/day (rat OECD 414)
Specific target organ toxicity	Single exposure – may cause respiratory irritation, Repeated exposure – No data available

12. Ecological Information	
Toxicity – fish	LC0 (96 h static) 10000 mg/l (zebra fish OECD 203)
Toxicity - water flea	EC50 (24 h) >1000 mg/l (Daphnia magna OECD 202)
Toxicity – algae	EC50 (72 h) >10000 mg/l (Scenedesmus subspicatus OECD 201) comparable substance
Persistence and degradability	No data available
Bioaccumulative potential	Does not accumulate in organisms
Mobility in soil	No data available
Results of PBT/vPvB assessment	No data available/no data available
Other information	Amorphous silica is chemically and biologically inert

13. Disposal Information	
Recommendation	Dispose according to official regulations

14. Transportation Information	
UN-Number	None
UN proper shipping name	None
Transportation hazard class	DOT/IMDG/IATA - none/none/none

15. Regulatory Information	
SARA 302/304	Substance is not listed
SARA 313	CAS# 68611-47-2 is subject to reporting levels established by SARA Title III, Section 313 (1/7/12)
TSCA (Toxic Substance Control Act)	Substance is listed
Proposition 65	This product does not contain any chemical known to cause cancer, birth defects, or other reproductive harm

16. Other Information	
HMIS Rating	Health/Chronic health/Flammability/Physical Hazard – 2/-/0/1
NFPA Rating	Health hazard/Fire hazard/Reactivity Hazard – 2/0/1
Preparation Information	Miles Scientific (Analtech)
Version	1.1
Revision Date	2/1/17

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