

1 Identification

- **Product identifier**
- **Trade name: GMK-S5**
- **Application of the substance / the preparation:** Intermediate product
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
GRACE
W. R. Grace & Co.-Conn
7500 Grace Drive
Columbia MD 21044
U. S. A.
- **Information department:**
Health and Safety (9 AM to 5 PM-EST) 1-410-531-4000
MSDS.Davison@grace.com
- **Emergency telephone number:**
Chemtrec North America: +1-800-424-9300
Chemtrec International: +1-703-527-3887
Other Emergencies (24hr): +1-410-531-4000

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

- **Label elements**
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Silica, crystalline (airborne particles of respirable size)
- **Hazard statements**
May cause cancer.
- **Precautionary statements**
Do not breathe dust.
Collect spillage.
Store in accordance with local/regional/national/international regulations.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

(Contd. on page 2)

Trade name: **GMK-S5**

(Contd. of page 1)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = *1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

* Product presents long-term adverse effects.


· **Hazard not otherwise classified**

WARNING. Contains a substance known to the State of California to cause cancer.


3 Composition/information on ingredients· **Chemical characterization: Substances**· **Description:**· **CAS No. and description:**

92704-41-1	Kaolin, calcined	97-100%
------------	------------------	---------

· **List of Dangerous Components**

Silica, crystalline (airborne particles of respirable size)	 Carc. 1A, H350	< 3%
---	--	------

· **Impurities and stabilizing additives:**

Silica, crystalline (airborne particles of respirable size)	 Carc. 1A, H350
---	--

4 First-aid measures· **Description of first aid measures**· **General information:** No special measures required.· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.· **After eye contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If symptoms occur, consult a doctor.

· **After swallowing:** Seek medical attention. Do not induce vomiting.· **Information for doctor:**· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures· **Extinguishing media**· **Suitable extinguishing agents:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.· **Hazardous combustion products** No further relevant information available.· **Advice for firefighters**· **Protective equipment:** No special measures required.

USA

(Contd. on page 3)

Trade name: **GMK-S5**

(Contd. of page 2)

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections** No dangerous substances are released.
- **Protective Action Criteria for Chemicals**

• **PAC-1:**

Substance is not listed.

• **PAC-2:**

Substance is not listed.

• **PAC-3:**

Substance is not listed.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

• **Components with limit values that require monitoring at the workplace:****Silica, crystalline (airborne particles of respirable size)**

PEL	Long-term value: 0.1 mg/m ³ 250 mppcf %SiO ₂ +5 / 10 mg/m ³ %SiO ₂ +2
REL	Long-term value: 0.05 mg/m ³ Ca
TLV	Long-term value: 0.025 mg/m ³ A2

• **Additional information:**

Valid lists at time of creation were used as basis.

Occupational exposure limits to respirable crystalline silica are not expected to be exceeded during normal, foreseeable conditions of fresh product use, as recommended by GRACE. Exposure to respirable dust and respirable crystalline silica should be monitored and controlled during other conditions.

• **Exposure controls**• **Personal protective equipment:**• **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

(Contd. on page 4)

USA

Trade name: **GMK-S5**

(Contd. of page 3)

• **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation. As appropriate for the employee exposure, use a NIOSH approved respirator and cartridge.
Use NIOSH-approved equipment with APF = 10 or better when dust is present.

• **Protection of hands:**

Protective gloves

Check protective gloves prior to each use for their proper condition.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to lack of information no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• **Material of gloves**

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR

• **Eye protection:**

Safety glasses

• **Body protection:** Protective work clothing**9 Physical and chemical properties**• **Information on basic physical and chemical properties**• **General Information**• **Appearance:**

Form: Powder
Color: White

• **Odor:** Odorless
• **Odor threshold:** Not available.

• **pH-value:** 5-9• **Change in condition****Melting point/Melting range:** >1100 °C (>2012 °F)**Boiling point/Boiling range:** Not determined.• **Conditions of flammability****Flash point:** Not available.

• **Flammability (solid, gaseous):** Product is not flammable.
• **Ignition temperature:** Not available.

(Contd. on page 5)

Trade name: **GMK-S5**

(Contd. of page 4)

· Decomposition temperature:	Not available.
· Auto igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	- Vol %
Upper:	- Vol %
· Vapor pressure:	Not applicable.
· Density:	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water at 20 °C (68 °F):	1.15 g/l
· Coefficient of water/oil distribution:	Not applicable.
· Viscosity:	-
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
No decomposition if used according to specifications.
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid**
In case of thermal decomposition caused by smouldering and incomplete combustion toxic fumes may be developed.
- **Incompatible materials:** Protect from contamination.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on the likely routes of exposure**
- **Delayed and immediate effects and chronic effects from short or long term exposure**
- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

92704-41-1 Kaolin, calcined

Oral	LD50	>5000 mg/kg (rat) (EPA OPP 81-1) comparable material
Dermal	LD50	>5000 mg/kg (rat) (EPA OPP 81-2) comparable material
Inhalative	LC50 (4 h)	>2.07 mg/l (rat) (EPA OPP 81-3)

- **Primary irritant effect:**

- **on the skin:**

92704-41-1 Kaolin, calcined

Irritation of skin	IS	0 (rabbit) (OECD 404) comparable substance
--------------------	----	---

(Contd. on page 6)

Printing date 06/23/2017

Version: 1.0

Reviewed on 06/23/2017

Trade name: **GMK-S5**

(Contd. of page 5)

· **on the eye:****92704-41-1 Kaolin, calcined**

Irritation of eyes	IS	<0.33 (rabbit) (EPA OPP 870.2400) comparable substance
--------------------	----	---

· **Skin sensitization****92704-41-1 Kaolin, calcined**

Sensitization	SI	<0.72 (mouse) (OECD 429) highest concentration: 25% comparable substance
---------------	----	--

· **Additional toxicological information:**

WARNING. Contains a substance known to the State of California to cause cancer.

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

Silica, crystalline (airborne particles of respirable size)	1
---	---

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Carc. 1A

· **Carcinogenicity** No further relevant information available.· **Mutagenicity****92704-41-1 Kaolin, calcined**

AMES Test	>0.5 mg/plate (Salmonella typhimurium) (OECD 471) negative with and without metabolic activation comparable substance
-----------	---

· **Reproductive toxicity** No further relevant information available.· **Specific target organ toxicity (single exposure)** No further relevant information available.· **Specific target organ toxicity (repeated exposure)** No further relevant information available.**12 Ecological information**· **Toxicity**· **Aquatic toxicity:**· **Fish toxicity****92704-41-1 Kaolin, calcined**

LC50 (96 h)	≥100 mg/l (zebra fish) (OECD 203) comparable substance
-------------	---

· **Water flea toxicity****92704-41-1 Kaolin, calcined**

EC0 (48h)	>100 mg/l (Daphnia magna) (OECD 202) comparable substance
-----------	--

· **Algae toxicity****92704-41-1 Kaolin, calcined**

EC50 (72 h)	>100 mg/l (Scenedesmus subspicatus) (OECD 201) comparable substance
-------------	--

· **Persistence and degradability** No further relevant information available.

(Contd. on page 7)

Printing date 06/23/2017

Version: 1.0

Reviewed on 06/23/2017

Trade name: **GMK-S5**

(Contd. of page 6)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Recommendation:** Smaller quantities can be disposed of with household waste.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | None |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | None |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | None |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | None |
| · Environmental hazards: | Not applicable. |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA**

· **SARA 302/304**

Substance is not listed.

· **SARA 313**

Substance is not listed.

- **SARA 311/312** Delayed (Chronic) Health Hazard.

· **TSCA (Toxic Substances Control Act):**

92704-41-1 Kaolin, calcined

Silica, crystalline (airborne particles of respirable size)

· **Proposition 65**· **Chemicals known to cause cancer:**

Silica, crystalline (airborne particles of respirable size)

(Contd. on page 8)

USA

Printing date 06/23/2017

Version: 1.0

Reviewed on 06/23/2017

Trade name: **GMK-S5**

(Contd. of page 7)

<ul style="list-style-type: none"> Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

<ul style="list-style-type: none"> Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

<ul style="list-style-type: none"> Chemicals known to cause developmental toxicity:
--

Substance is not listed.

<ul style="list-style-type: none"> Carcinogenic categories

<ul style="list-style-type: none"> EPA (Environmental Protection Agency)

Substance is not listed.

<ul style="list-style-type: none"> TLV (Threshold Limit Value established by ACGIH)
--

Substance is not listed.

<ul style="list-style-type: none"> NIOSH-Ca (National Institute for Occupational Safety and Health)
--

Substance is not listed.

<ul style="list-style-type: none"> Canadian DSL
--

92704-41-1	Kaolin, calcined
------------	------------------

	Silica, crystalline (airborne particles of respirable size)
--	---

<ul style="list-style-type: none"> Canadian NDSL

Substance is not listed.

<ul style="list-style-type: none"> European EINECS

Substance is listed.

<ul style="list-style-type: none"> Philippines Inventory of Chemicals and Chemical Substances PICCS
--

Substance is listed.

<ul style="list-style-type: none"> Inventory of the Existing Chemical Substances manufactured or imported in China IECSC

Substance is listed.

<ul style="list-style-type: none"> Australian Inventory of Chemical Substances AICS
--

Substance is listed.

<ul style="list-style-type: none"> Existing and New Chemical Substance List ENCS

92704-41-1	Kaolin, calcined	1-26
------------	------------------	------

14808-60-7	quartz (SiO ₂)	1-548
------------	----------------------------	-------

<ul style="list-style-type: none"> Korean Existing Chemical Inventory KECI

92704-41-1	Kaolin, calcined	KE-21773
------------	------------------	----------

14808-60-7	quartz (SiO ₂)	KE-29983
------------	----------------------------	----------

<ul style="list-style-type: none"> TCSCA (Taiwan)
--

EPEP4A01713958

<ul style="list-style-type: none"> GHS label elements
--

The substance is classified and labeled according to the Globally Harmonized System (GHS).
--

<ul style="list-style-type: none"> Hazard pictograms



GHS08

<ul style="list-style-type: none"> Signal word Danger
--

<ul style="list-style-type: none"> Hazard-determining components of labeling:
--

Silica, crystalline (airborne particles of respirable size)

<ul style="list-style-type: none"> Hazard statements

May cause cancer.

(Contd. on page 9)

Printing date 06/23/2017

Version: 1.0

Reviewed on 06/23/2017

Trade name: **GMK-S5**

(Contd. of page 8)

· Precautionary statements

- Do not breathe dust.
- Collect spillage.
- Store in accordance with local/regional/national/international regulations.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H350 May cause cancer.

· Department issuing SDS: GRACE Safety & Health Department**· Date of preparation / last revision** 06/23/2017 / -**· The first date of preparation** 06/21/2017**· Number of revision times and the latest revision date** 1.0 / 06/23/2017**· Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Carc. 1A: Carcinogenicity – Category 1A

· Others No further relevant information available.

USA