Safety Data Sheet

GS-4511

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Report No.：GS-4511-01M
Creation Date：2017/12/04
Revision Date：2017/12/04

***Prepared according to UN GHS (the 6th revised edition)**

1 Identification of the chemical and supplier

Product identifier

Product Name	GS-4511
Cat No.	GS-4511
Synonyms	-
CAS No.	-
EC No.	-
Molecular Formula	-

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Dongguan Changlian New Materials Technology Co., Ltd
Address of the company	Songsha Road ,Xiaokeng Village Industry Park, Liaobu Town, Dongguan City,Guangdong Province
Post code	523419
Telephone number	0769-83215622
Fax number	0769-83215608
E-mail address	1695982947@qq.com

Emergency phone number

Emergency phone number	0769-83215622

2 Hazards identification

Hazard classification according to GHS

Aspiration Hazard	Category 2
Skin Corrosion/Irritation	Category 3
Sensitization – Skin	Category 1
Serious Eye Damage/Irritation	Category 2A
Hazardous To The Aquatic Environment – Short-Term (Acute) Hazard	Category 3

Label elements

Hazard pictograms	
Signal word	Warning

Hazard statements

H305	May be harmful if swallowed and enters airways
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H402	Harmful to aquatic life

Precautionary statements

◆ Prevention

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

◆ Response

P331	Do NOT induce vomiting.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

◆ Storage

P405	Store locked up.

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

Hazard description

◆ Physical and chemical hazards

	No information available

◆ Health hazards

Inhaled	May be harmful if swallowed and enters airways during the course of normal handling.

Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	The product may cause an allergic skin reaction following direct contact with the skin. The product can cause mild skin irritation following direct contact with the skin.
Eye	This product may cause serious eye irritation. Severe inflammation may be expected with pain following direct contact with the eye.

◆ Environmental hazards

	This product is harmful to aquatic life. Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Component	Cas No.	EC No.	Concentration (weight percent, %)
AK 605-23	25035-69-2	-	30~35
Rutile (TiO2)	1317-80-2	257-372-4	8~15
Aluminium silicate	12141-46-7	235-253-8	2~5
Paraffin waxes and Hydrocarbon waxes	8002-74-2	232-315-6	4~8
Propane-1,2-diol	57-55-6	200-338-0	4~8
Polyacrylate thickener	25035-69-2	-	2~3
1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9	0.3~0.6
Ammonia, aqueous solution	1336-21-6	215-647-6	0.3~0.6
Water	7732-18-5	231-791-2	40~45

4 First aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Firefighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing agent suitable for type of surrounding fire.
Unsuitable extinguishing media	No special notes.

Specific hazards arising from the substance or mixture

1	Containers may explode when heated.
2	May expansion or decompose explosively when heated or involved in fire.

Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent)and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition.Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
3	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

Precautions for handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

Precautions for storage

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/ hot surfaces.

4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Paraffin waxes and Hydrocarbon waxes 8002-74-2	USA - NIOSH	-	2	-	-
	United Kingdom	-	2	-	6
	South Korea	-	2	-	-
	Ireland	-	2	-	6
	Denmark	-	2	-	4
	Australia	-	2	-	-
Propane-1,2-diol 57-55-6	United Kingdom	-	10	-	-
	United Kingdom	150	474	-	-
	New Zealand	150	474	-	-
	Latvia	-	7	-	-
	Ireland	-	10	-	-
	Ireland	150	470	-	-
	Canada - Ontario	-	10	-	-
	Canada - Ontario	50	155	-	-
	Australia	-	10	-	-
	Australia	150	474	-	-

◆ Biological limit values

Biological limit values	No information available

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard).

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	
Eye protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	Wear fire/flame resistant/retardant clothing and antistatic boots.

9 Physical and chemical properties

Physical and chemical properties

Appearance	white paste
Odor	Slight odor
Odor threshold	No information available
pH	> 7 (Basic)
Melting point/freezing point(℃)	No information available
Initial boiling point and boiling range(℃)	No information available
Flash point(Closed cup,℃)	The flash point above 93 ℃
Evaporation rate	Difficult volatile liquid
Flammability	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit：Not combustible；Lower limit：Not combustible
Vapor pressure	Difficult volatile liquid
Relative vapour density(Air＝1)	Difficult volatile liquid
Relative density(Water=1)	No information available
Solubility(mg/L)	Slightly soluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(℃)	Not combustible
Decomposition temperature(℃)	No information available
Kinematic viscosity	No information available
Particle characteristics	Not applicable

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.

Possibility of hazardous reactions	In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	Cas No.	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Propane-1,2-diol	57-55-6	20000mg/kg(Rat)	20800mg/kg(Rabbit)	No information available
1,2-benzisothiazol-3(2H)-one	2634-33-5	1020mg/kg(Rat)	No information available	No information available
Ammonia, aqueous solution	1336-21-6	350mg/kg(Rat)	No information available	No information available

Carcinogenicity

ID	Cas No.	Component	IARC	NTP
1	25035-69-2	AK 605-23	Not Listed	Not Listed
2	1317-80-2	Rutile (TiO2)	Not Listed	Not Listed
3	12141-46-7	Aluminium silicate	Not Listed	Not Listed
4	8002-74-2	Paraffin waxes and Hydrocarbon waxes	Not Listed	Not Listed
5	57-55-6	Propane-1,2-diol	Not Listed	Not Listed
6	25035-69-2	Polyacrylate thickener	Not Listed	Not Listed
7	2634-33-5	1,2-benzisothiazol-3(2H)-one	Not Listed	Not Listed
8	1336-21-6	Ammonia, aqueous solution	Not Listed	Not Listed
9	7732-18-5	Water	Not Listed	Not Listed

Others

GS-4511	
Skin corrosion/irritation	Causes mild skin irritation
Serious eye damage/irritation	Causes eye irritation
Skin sensitization	May cause an allergic skin reaction
Respiratory sensitization	No information available
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	No information available
Aspiration hazard	May be harmful if swallowed and enters airways

Germ cell mutagenicity	No information available
Reproductive toxicity(additional)	No information available

12 Ecological information

Acute aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Propane-1,2-diol	57-55-6	LC_{50}：39800mg/L (96h)(Fish)	EC_{50}：>1000mg/L (48h)(Crustaceans)	ErC_{50}：>1000mg/L (72h)(Algae)
1,2-benzisothiazol-3(2H)-one	2634-33-5	LC_{50}：10mg/L (96h)(Fish)	EC_{50}：4.4mg/L (48h)(Crustaceans)	No information available

Chronic aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Propane-1,2-diol	57-55-6	NOEC：>100mg/L(Fish)	NOEC：1000mg/L(Crustaceans)	NOEC：1000mg/L(Algae)

Persistence and degradability

Component	Cas No.	Persistence (water/soil)	Persistence (air)
Rutile (TiO2)	1317-80-2	High	High
Ammonia, aqueous solution	1336-21-6	Low	Low
1,2-benzisothiazol-3(2H)-one	2634-33-5	High	High
Propane-1,2-diol	57-55-6	Low	Low
Water	7732-18-5	Low	Low

Bioaccumulative potential

Component	Cas No.	Bioaccumulative potential	comments
Rutile (TiO2)	1317-80-2	Low	BCF=10
Ammonia, aqueous solution	1336-21-6	Low	LogKOW=0.229
1,2-benzisothiazol-3(2H)-one	2634-33-5	Low	LogKOW=2.73
Propane-1,2-diol	57-55-6	Low	BCF=1
Water	7732-18-5	Low	LogKOW=-1.38

Mobility in soil

Component	Cas No.	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Rutile (TiO2)	1317-80-2	Low	23.74
Ammonia, aqueous solution	1336-21-6	Low	14.3

1,2-benzisothiazol-3(2H)-one	2634-33-5	Low	103.9
Propane-1,2-diol	57-55-6	High	1
Water	7732-18-5	Low	14.3

Results of PBT and vPvB assessment

Component	Cas No.	Results of PBT and vPvB assessment (according to (EC) No 1907/2006)
AK 605-23	25035-69-2	not PBT/vPvB
Rutile (TiO2)	1317-80-2	not PBT/vPvB
Aluminium silicate	12141-46-7	not PBT/vPvB
Paraffin waxes and Hydrocarbon waxes	8002-74-2	not PBT/vPvB
Propane-1,2-diol	57-55-6	not PBT/vPvB
Polyacrylate thickener	25035-69-2	not PBT/vPvB
1,2-benzisothiazol-3(2H)-one	2634-33-5	not PBT/vPvB
Ammonia, aqueous solution	1336-21-6	not PBT/vPvB
Water	7732-18-5	not PBT/vPvB

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section 13.1and 13.2.

14 Transport information

Label and Mark

Transporting Label	Not applicable

IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

ICAO/IATA-DG

ICAO/IATA-DG	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

15 Regulatory information

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS

AK 605-23	×	√	√	√	√	√	√	√	√
Rutile (TiO2)	√	√	√	√	√	√	√	√	√
Aluminium silicate	√	√	√	√	√	√	√	√	√
Paraffin waxes and Hydrocarbon waxes	√	√	√	√	√	√	√	√	×
Propane-1,2-diol	√	√	√	√	√	√	√	√	√
Polyacrylate thickener	×	√	√	√	√	√	√	√	√
1,2-benzisothiazol-3(2H)-one	√	√	√	√	√	√	√	√	√
Ammonia, aqueous solution	√	√	√	√	√	√	√	√	√
Water	√	√	√	√	√	√	√	√	×

【EINECS】 European Inventory of Existing Commercial Chemical Substances
【TSCA】 United States Toxic Substances Control Act Inventory
【DSL】 Canadian Domestic Substances List
【IECSC】 China Inventory of Existing Chemical Substances
【NZIoC】 New Zealand Inventory of Chemicals
【PICCS】 Philippines Inventory of Chemicals and Chemical Substances
【KECI】 Existing and Evaluated Chemical Substances
【AICS】 Australia Inventory of Chemical Substances
【ENCS】 Existing And New Chemical Substances

Note
"√" Indicates that the substance included in the regulations
"×" That no data or included in the regulations

16 Others

Information on revision

Creation Date	2017/12/04
Revision Date	2017/12/04
Reason for revision	-

Reference

[1]IPCS:The International Chemical Safety Cards (ICSC) ,website: http://www.ilo.org/dyn/icsc/showcard.home.
[2]IARC , website: http://www.iarc.fr/.
[3]OECD: The Global Portal to Information on Chemical Substances, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en.
[4]CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5]NLM:ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6]EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7]U.S. Department of Transportation:ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8]Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS –Chemical Abstracts Service
CMR - Carcinogens, mutagens or substances toxic to reproduction

PC-STEL- Short term exposure limit

PC-TWA - Time Weighted Average

DNEL - Derived No Effect Level

IARC - International Agency for Research on Cancer

RPE - Respiratory Protective Equipment

PNEC –Predicted No Effect Concentration

LC_{50} - Lethal Concentration 50%

LD_{50} - Lethal Dose 50%

NOEC -No Observed Effect Concentration

EC_{50} - Effective Concentration 50%

PBT - Persistent, Bioaccumulative, Toxic

POW - Partition coefficient Octanol:Water

BCF - Bioconcentration factor (BCF)

vPvB - very Persistent, very Bioaccumulative

IMDG-International Maritime Dangerous Goods

ICAO/IATA-International Civil Aviation Organization/International Air Transportation Association

UN-The United Nations

ACGIH-American Conference of Governmental Industrial Hygienists

NFPA-National Fire Protection Association

OECD-Organization for Economic Co-operation and Development

Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 6th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user’ s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.