2 HAZARDS IDENTIFICATION

CLP classification according to Regulation（EC）No.1272/2008

According to Regulation (EC) No 1272/2008 and its amendments. Not classified as a dangerous substance.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable

Precautionary statements

Prevention

Prevention	Not applicable

Response

Response	Not applicable

Storage

Storage	Not applicable

Disposal

Disposal	Not applicable

Other hazards

Results of PBT and vPvB assessment

Component	*Results of PBT and vPvB assessment [according to(EC) No 1907/2006]*
Dimethicone	Not available
Graphite Powder	Not available
Fumed Silica	Not available
Butylated Hydroxytoluen	Not available

Results of endocrine disrupting properties assessment

Component	*Results of endocrine disrupting properties assessment [according to (EU) No 2017/2100 or (EU) No 2018/605]*
Dimethicone	Not available
Graphite Powder	Not available
Fumed Silica	Not available
Butylated Hydroxytoluen	Not available

Other

	Not applicable

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture

	Mixture

Component	*Weight % content (orrange)*	*Classification according to Regulation (EC)No. 1272/2008 [CLP]*	*Specific Conc.Limits, M-factors*
Dimethicone CAS:9006-65-9 EC:618-433-4 IndexNo.：-	82-88	Not Classified	-
GraphitePowder CAS:7782-42-5 EC:231-955-3 IndexNo.：-	5	Not Classified	-
FumedSilica CAS:112945-52-5 EC:601-216-3 IndexNo.：-	4-5	Cause skin irritation, Category 2, H315; Causing severe eye irritation，Category 2A, H319；May cause respiratory irritation，Category 3 (Respiratory Irritation), H335	-
Butylated Hydroxytoluene CAS:128-37-0 EC:204-881-4 IndexNo.：-	2-5	It is highly toxic to aquatic organisms and has long lasting effects, Category1, H410	-

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	
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 you 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, provide oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, seek medical attention immediately.
Protecting of first-aiders	Ensure that medical personnel are informed about the substance involved. They should take precautions to protect themselves and prevent the spread of contamination.

Most important symptoms and effects, acute and delayed

1	Please see section 11

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for the surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher that may be used.

Specific hazards arising from the substance or mixture

1	Will form explosive mixtures with air.
2	Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
3	Vapours may travel to source of ignition and flash back.
4	Liquid and vapour are flammable.
5	Development of hazardous combustion gases or vapor possible in the event of fire.
6	May expand or decompose explosively when heated or exposed to fire.

Advice for firefighters

1	As with any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight the fire from a safe distance, with adequate covering.
3	May expand or decompose explosively when heated or exposed to fire.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

1	Avoid breathing vapours and contact with the skin and eye.
2	Beware of vapours accumulating to form explosive concentrations.
3	Vapours can accumulate in low areas.
4	Emergency personnel should wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5	Use personal protective equipment. Do not breathe gas/mist/vapour/spray
6	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
7	Evacuate personnel to safe areas and keep people away from the spill or leak.

Environmental precautions

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

Personal precautions, protective equipment and emergency procedures

1	We recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
2	In case of small amount of spillage use clean non-sparking tools to collect absorption materials.
3	In the event of a large spill, construct a cofferdam or dig a hole to contain the spillage. Use a foam cover to reduce evaporation. While a water spray mist can help minimize evaporation, it does not decrease the flammability of the leakage in confined spaces.
4	Collect absorbent material using a clean, non-sparking tool.
5	Collect absorbent material using a clean, non-sparking tool.
6	Cover with DRY earth DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with the rain.
7	Water spray reduces evaporation but it does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.
10	Absorb spilled material with dry sand or an inert absorbent. In the case of a large spill, contain the spill by constructing a bund.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain the spillage, then collect it using an electrically protected vacuum or by wet brushing, and place the material in a suitable container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 HANDLING AND STORAGE

Precautions for handling

Protective measures

1	Handling should be performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with the skin and eyes.

Measures to prevent fire

1	Use only non-sparking tools.
2	Ground all equipment and metal parts to prevent fires from electrostatic discharge.

3	Use only non-sparking tools.
4	Keep away from heat/sparks/open flames/hot surfaces.

Measures to prevent aerosol and dust generation.

1	Not applicable.

Advice on general occupational hygiene

1	Wash hands and face after using the substances.
2	Wash hands and face after using the substances.

Conditions for safe storage, including any incompatibilities

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 food containers.

Specific end uses

1	In addition to the uses mentioned earlier, there may be other unforeseen specific uses.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Component	*Country/ Region*	*Limit value - Eight hours*		*Limit value - Short term*	
		ppm	*mg/mt*	*ppm*	*mg/mt*
Graphite Powder	United States - OSHA	-	15	-	-
	South Korea	-	2	-	-
	Ireland	-	10	-	-
	Germany (DFG)	-	4	-	-
	Denmark	-	2.5	-	5

	Australia	-	3 (4)	-	-
	United States - ACGIH	-	2	-	-
Butylated Hydroxytolene	United States - ACGIH	-	10	-	-
	South Korea	-	2	-	-
	Ireland	-	10	-	-
	Germany (AGS)	-	10	-	40
	Denmark	-	10	-	20
	Australia	-	10	-	-
	United States - ACGIH	-	2	-	-

Occupational Exposure limit values

Occupational Exposure limit values	No information available

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 300 Series Standard: Determination of Toxic Substances in Workplace Air.

Derived No effect level(DNEL)

Component	*Route of exposure*	*DNEL for Workers*			
		Acute effects (local)	*Acute effects (systemic)*	*Chronic effects (local)*	*Chronic effects (systemic)*
Dimethicone	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Graphite Powder	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available

	Dermal	No data available	No data available	No data available	No data available
Fumed Silica	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Butylated Hydroxytoluene	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

Predicted No Effect Concentration（PNEC)

Predicted No Effect Concentration（PNEC)	No information available

Engineering controls

1	Ensure adequate ventilation, particularly in confined areas.
2	Ensure that eyewash stations and safety showers are easily accessible near the workstation.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Establish emergency exits and designate necessary risk-elimination areas

Personal protection equipment

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear anti-static chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear anti-static chemical protective clothing and anti-static shoes.

9 PHYSICAL AND CHEMICAL PROPERTIES AND SAFETY CHARACTERISTICS

Physical and chemical properties

SAFETY DATA SHEET

Prepared according to EU regulation No. 2020/878

Lubricant

Version: *V2.0.0.1*
Report No.: *BRIMIN2023162MOR*
Creation Date: *2023/04/11*
Revision Date: *2023/04/11*

Physical state	Liquid
Colour	Black
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit：No information available；Lower limit：No information available
Vapor pressure	No information available
Vapor density(Air=1)	No information available
Relative density(Water=1)	No information available
Solubility(mg/L)	Insolubility with water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Kinematic viscosity(mm/s)	No information available
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing
Particle characteristics	No information available

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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 oxidants causes severe reactions, and may cause a fire or explosion. In contact with active metals (alkali metals, Na, Ca etc.)
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidants, alkali metals, alkaline earth metals and aluminum. 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	*LD50（oral*	*LD50（oral*	*LD50（oral*
Dimethicone	Not Listed	Not Listed	Not Listed
Graphite Powder	LD50 - rat (female) - > 2 000 mg/kg bw.	Not Listed	Not Listed
Fumed Silica	Not Listed	Not Listed	Not Listed
Butylated Hydroxytoluene	LD50 - rat (male/female) - > 6 000 mg/kg bw.	LD50 - rat (male/female) - > 2 000 mg/kg bw.	RD50 - mouse (male) - 59.7 ppm.

Carcinogenicity

Component	*List of carcinogens by the lARC Monographs*	*Report on Carcinogens by NTP*
Dimethicone	Not Listed	Not Listed
Graphite Powder	Not Listed	Not Listed
Fumed Silica	Not Listed	Not Listed
Butylated Hydroxytoluene	Not Listed	Not Listed

Endocrine disrupting properties

Component	*Endocrine disrupting properties*
Dimethicone	Not Listed
Graphite Powder	Not Listed
Fumed Silica	Not Listed
Butylated Hydroxytoluene	Not Listed

Others

	Lubricant
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/ irritation	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Respiratory sensitization	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met.

12 ECOLOGICAL INFORMATION

Acute aquatic toxicity

Component	*Fish*	*Crustaceans*	*Algae*
Graphite Powder	LC50 - Danio rerio (previous name: Brachydanio rerio) - > 100 mg/L - 96 h.	EC50 - Daphnia magna - > 100 mg/L - 48 h. Remarks:Swimming.	EC50 - Pseudokirchneriella subcapitata (previous names:Raphidocelis subcapitata, Selenastrum capricornutum) - > 100 mg/L - 72 h.

Butylated Hydroxytoluene	LC50 - Danio rerio (previous name: Brachydanio rerio) - > 0.57 mg/L - 96 h.	EC50 - Daphnia magna - 0.48 mg/L - 48 h.	EC50 - Desmodesmus subspicatus (previous name:Scenedesmus subspicatus) - > 0.4 mg/L - 72 h.

Chronic aquatic toxicity

Chronic aquatic toxicity	No information available

Persistence and degradability in relation to acute aquatic toxicity

Persistence and degradability	No information available

Bioaccumulative potential

Bioaccumulative potential	No information available

Mobility in soil

Mobility in soil	No information available

Results of PBT and vPvB assessment

Component	*Results of PBT and vPvB assessment [according to (EC) No 1907/2006]*
Dimethicone	Not available
Graphite Powder	Not available
Fumed Silica	Not available
Butylated Hydroxytoluene	Not available

Endocrine disrupting properties

Component	*Endocrine disrupting properties*
Dimethicone	Not available
Graphite Powder	Not available
Fumed Silica	Not available
Butylated Hydroxytoluene	Not available

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13 DISPOSAL CONSIDERATIONS

Disposal considerations

Waste chemicals	Disposal should comply with relevant national and local laws and regulations.
Contaminated packaging	Empty containers may still pose a chemical hazard. Keep them away from heat and ignition sources. Return to the supplier for recycling if possible.
Disposal recommendations	Refer to section 13.1 and 13.2.

14 TRANSPORT INFORMATION

Label and Mark

Transporting Label	No 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	*EC inventory*	*TSCA*	*DSL*	*IECSC*	*NZIoC*	*PICCS*	*KECI*	*AICS*	*ENCS*
Dimethicone	⊗	⊗	✓	✓	✓	✓	⊗	✓	⊗

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Graphite Powder	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fumed Silica	✗	✗	✓	✓	✓	✓	✓	✓	✗
Butylated Hydroxytoluene	✓	✓	✓	✓	✓	✓	✓	✓	✓

[EC inventory] European Inventory of Existing Commercial Chemical Substances
[TSCA] UnitedStates 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]Korea Existing Chemicals Inventory
[AIICS] Australian. Inventory of Industrial Chemical (AIICS)
[ENCS] Japan Inventory of Existing & New Chemical Substances

European chemical inventory

Component	*A*	*B*	*C*	*D*	*E*	*F*	*G*
Dimethicone	✗	✗	✗	✗	✗	✗	✗
Graphite Powder	✗	✗	✗	✗	✗	✗	✗
Fumed Silica	✗	✗	✗	✗	✗	✗	✗
Butylated Hydroxytoluene	✗	✗	✗	✗	✗	✗	✗

[A] Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[B] Substances requiring authorization under EU REACH regulation
[C] Substances restricted under EU REACH
[D] Pre-registered substances under EU REACH
[E] Registered substances under EU REACH
[F] Substance Evaluation – CoRAP under EU REACH
[G] List of priority substances under EU water policy (Directive 2455/2001/EC)

Note:
✓ Indicates that the substance included in the regulations.
✗ No data or not included in the regulations.

16 OTHER INFORMATION

SAFETY DATA SHEET

Prepared according to EU regulation No. 2020/878

Lubricant

Version: *V2.0.0.1*
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Creation Date: *2023/04/11*
Revision Date: *2023/04/11*

Information on revision

Creation Date	2023/04/11
Revision Date	2023/04/11
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: https://www.echemportal.org/echemportal/substancesearch/index.action。
[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
PC-STEL	Short term exposure limit
PC-TWA	Time Weighted Average
MAC	Maximum Allowable Concentration
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
NOEC	No Observed Effect Concentration
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
EC50	Effective Concentration 50%
ECX	Effective Concentration X%
POW	Partition coefficient Octanol: Water
BCF	Bioconcentration factor
ED	Endocrine disruptor
UN	The United Nations
OECD	Organization for Economic Co-operation and Development
IMDG-CODE	International Maritime Dangerous Goods CODE
IARC	International Agency for Research on Cancer
ICAO	International Civil Aviation Organization
IATA	International Air Transportation Association
ACGIH	American Conference of Governmental Industrial Hygienists
NFPA	National Fire Protection Association
NTP	National Toxicology Program
PBT	Persistent, Bioaccumulative, Toxic
vPvB	very Persistent, very Bioaccumulative
CMR	Carcinogens, mutagens or substances toxic to reproduction
RPE	Respiratory Protective Equipment

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACH Regulation 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 sourcesand 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.

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