SAFETY DATA SHEET

DB5720 GG

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: DB5720 GG

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

Relevant identified uses of the substance or mixture: Friction material for brake pads used in brake systems of vehicles.
Restricted to professional users.

Uses advised against : None known.
Dust generated during machining and grinding operations may cause respiratory, skin and eye irritation.

1.3. Details of the supplier of the safety data sheet

Company and address:

Roulunds Braking
Hestehaven 43
DK-5260 Odense S
Denmark
+45 63 13 47 00
www.roulunds-braking.dk

E-mail: sds@roulunds-braking.dk

SDS date: 12/5/2024

SDS Version: 1.0

1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case
See also section 4 “First aid measures”.

SECTION 2: HAZARD(S) IDENTIFICATION

2.1. Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

2.2. Label elements

Hazard pictogram(s): Not applicable.

Signal word: Not applicable.

Hazard statement(s):

Precautionary statement(s):

General: -

Prevention: -

Response: -

Storage: -

Disposal: -

Additional labelling: Not applicable.

2.3. Other hazards

Additional warnings: In the brake pad product, the raw materials are bound and thus are not free to be released individually. Thus the product is non-hazardous under normal handling and use.
However, if it is machined then exposure to the dust should be avoided.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Iron	CAS No.: 7439-89-6	25-40%		
Aluminium oxide	CAS No.: 1344-28-1	5-10%		
Graphite	CAS No.: 7782-42-5	5-10%		
Calcium hydroxide	CAS No.: 1305-62-0	3-5%	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	
Magnesium oxide	CAS No.: 1309-48-4	1-3%		
Manganese	CAS No.: 7439-96-5	<1%		

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

In the brake pad product, the raw materials are bound and thus are not free to be released individually. Thus the product is non-hazardous under normal handling and use.
However, if it is machined then exposure to the dust should be avoided.

SECTION 4: FIRST-AID MEASURES

4.1. Description of first aid measures

General information: If breathing is irregular, drowsiness, loss of

consciousness or cramps: Call 911 and give immediate treatment (first aid).
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation: In case of discomfort: bring the person into fresh air.

Skin contact: Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact: Rinse gently with lukewarm water. Remove any contact lenses if this is easy to do. Continue rinsing. In case of persistent eye irritation or discomfort: Seek medical help.

Ingestion: Rinse and flush mouth thoroughly and consume large quantities of water. In case of continued discomfort: seek medical assistance and bring this safety data sheet.

Burns: Not applicable.

4.2. Most important symptoms and effects, both acute and delayed
None known.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

Information to medics
Bring this safety data sheet or the label from this product.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media
Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Carbon oxides (CO / CO2)
Some metal oxides

5.3. Advice for firefighters
No specific requirements.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

6.2. Environmental precautions
Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up
Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.
It is preferred to use a vacuum cleaner when available.

6.4. Reference to other sections
See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Avoid contact during pregnancy and while nursing.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage material:	Keep only in original packaging.
Storage conditions:	Dry, cool and well ventilated
Incompatible materials:	No specific requirements

7.3. Specific end use(s)
This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Aluminium oxide
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 15 Total dust / 5 Respirable fraction
Long term exposure limit (ACGIH TLV) (mg/m^3): 1 (Respirable)
Long term exposure limit (NIOSH REL) (mg/m^3): 10

Calcium hydroxide
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 15 (total dust) / 5 (Respirable fraction)
Long term exposure limit (ACGIH TLV) (mg/m^3): 5 (total dust)
Long term exposure limit (NIOSH REL) (mg/m^3): 5 (total dust)

Magnesium oxide
Long term exposure limit (ACGIH TLV) (mg/m^3): 10 (Inhalable)
Long term exposure limit (NIOSH REL) (mg/m^3): 10

Silicic acid, calcium salt
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 15 (total dust) / 5 (Respirable fraction)
Long term exposure limit (ACGIH TLV) (mg/m^3): 1, natural as Wollastonite (Inhalable, no asbestos and < 1% crystalline silica)
Long term exposure limit (NIOSH REL) (mg/m^3): 10 (Total dust), 5 (Respirable fraction)

Manganese
Short term exposure limit (STEL) (NIOSH REL) (mg/m³): 3
Long term exposure limit (OSHA Table Z-1) (mg/m³): (Ceiling limit) 5
Long term exposure limit (ACGIH TLV) (mg/m³): 0.02 (resp.) / 0.1 (Inhalable) / (for elemental and inorganic compounds)
Long term exposure limit (NIOSH REL) (mg/m³): 1

Quartz (SiO2)
Long term exposure limit (ACGIH TLV) (mg/m³): 0.025 (resp.) for α-quartz and cristobalite
Long term exposure limit (NIOSH REL) (mg/m³): Potential occupational carcinogen; 0.05

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations:	Smoking, drinking and consumption of food is not allowed in the work area.
Exposure scenarios:	There are no exposure scenarios implemented for this product.
Exposure limits:	Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
Appropriate technical measures:	Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and showers are clearly marked.
Hygiene measures:	Wash hands after use.
Measures to avoid environmental exposure:	No specific requirements.

Individual protection measures, such as personal protective equipment

Generally: Use only protective equipment with a recognized certification mark, e.g. the UL mark.

Respiratory Equipment:

Type	Class	Colour	Standards	
No special when used as intended.				

Skin protection:

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Cotton/Latex	-	-	EN388, EN407	

Eye protection:

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Color:	Gray
Odor:	Characteristic
Odor threshold (ppm):	No relevant or available data due to the nature of the product.
pH:	No relevant or available data due to the nature of the product.
Density (g/cm^3):	2.05
Kinematic viscosity:	Not applicable - product is a solid
Particle characteristics:	Not applicable - product is a solid

Phase changes

Melting point/freezing point (°F):	Not applicable - product is a solid
Softening point/range (°F):	Does not apply to solids.
Boiling point (°F):	Not applicable - product is a solid
Vapor pressure:	Not applicable - product is a solid
Relative vapor density:	Not applicable - product is a solid
Decomposition temperature (°F):	Not applicable - product is a solid

Data on fire and explosion hazards

Flash point (°F):	Not applicable - product is a solid
Flammability (°F):	Not applicable - product is a solid
Auto-ignition temperature (°F):	Not applicable - product is a solid
Explosion limits (% v/v):	Does not apply to solids.

Solubility

Solubility in water:	No relevant or available data due to the nature of the product.
n-octanol/water coefficient (LogKow):	No relevant or available data due to the nature of the product.

Solubility in fat (g/L):	Not applicable - product is a solid

9.2. Other information

Evaporation rate (n-butylacetate = 100):	Not applicable - product is a solid
Other physical and chemical parameters:	No data available.
Oxidizing properties:	Not applicable - product is a solid

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No data available.

10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies
None known.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
No specific requirements

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity
Based on available data, the classification criteria are not met.

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.

Respiratory sensitisation
Based on available data, the classification criteria are not met.

Skin sensitisation
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Reproductive toxicity
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.

Long term effects
None known.

Other information
Quartz (SiO2) has been classified by IARC as a group 1 carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
No data available.

12.2. Persistence and degradability
Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential
Based on available data, the classification criteria are not met.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Other adverse effects
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Federal and state law regulates disposal of solid waste. Waste should be placed in airtight containers, and disposed of in accordance with 40CFR261, 40CFR262 and applicable state and local regulations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)
None of the components are listed

Specific labelling

Contaminated packing
Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	-	-	-	-	-	-

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to DOT, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. U.S. Federal regulations

TSCA (the non-confidential portion):	Aluminium oxide is listed Graphite is listed Calcium hydroxide is listed Magnesium oxide is listed Silicic acid, calcium salt is listed Manganese is listed Quartz (SiO2) is listed
Clean Air Act:	Manganese is regulated as a hazardous air pollutant (HAPS)
EPCRA Section 302:	None of the components are listed
EPCRA Section 304:	None of the components are listed
EPCRA section 313:	Aluminium oxide is listed Manganese is listed
CERCLA:	None of the components are listed
Hazardous chemical inventory reporting:	This product is not subject to Tier II reporting.

State regulations

California / Prop. 65:	None of the components are listed
Massachusetts / Right To Know Act:	Aluminium oxide is listed Graphite is listed Calcium hydroxide is listed Magnesium oxide is listed Silicic acid, calcium salt is listed Manganese is listed Quartz (SiO2) is listed
New Jersey / Right To Know Act:	Aluminium oxide / Substance number: 2891

	— Graphite / Substance number: 3325 — Calcium hydroxide / Substance number: 0322 — Magnesium oxide / Substance number: 1144 — Silicic acid, calcium salt / Substance number: 4002 — Manganese / Substance number: 1155 Manganese is on the Special Health Hazard Substance List — Quartz (SiO2) / Substance number: 1660 Quartz (SiO2) is on the Special Health Hazard Substance List
New York / Right To Know Act:	— Aluminium oxide is listed Aluminium oxide is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds — Calcium hydroxide is listed Calcium hydroxide is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds — Magnesium oxide is listed Magnesium oxide is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds — Manganese is listed Manganese is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds
Pennsylvania / Right To Know Act:	— Aluminium oxide is listed Aluminium oxide is hazardous to the environment (E) — Graphite is listed — Calcium hydroxide is listed — Magnesium oxide is listed — Silicic acid, calcium salt is listed — Manganese is listed Manganese is hazardous to the environment (E) — Quartz (SiO2) is listed

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15.4. Restrictions for application
Restricted to professional users.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

15.5. Demands for specific education
No specific requirements.

15.6. Additional information
Not applicable.

15.7. Chemical safety assessment
No

15.8. Sources
OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

The full text of identified uses as mentioned in section 1
None known.

Abbreviations and acronyms
ACGIH = American Conference of Governmental Industrial Hygienists
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CERCLA = Comprehensive Environmental Response Compensation and Liability Act
DOT = Department of Transportation
EINECS = European Inventory of Existing Commercial chemical Substances
EPCRA = Emergency Planning and Community Right-To-Know Act
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HCIS = Hazardous Chemical Information System
HNOC = Hazards Not Otherwise Classified
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NFPA = National Fire Protection Association
NIOSH = National Institute for Occupational Safety and Health
OECD = Organisation for Economic Co-operation and Development
OSHA = Occupational Safety and Health Administration
PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SARA = Superfund Amendments and Reauthorization Act
SCL = A specific concentration limit.
STEL = Short-term exposure limits
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TSCA = The Toxic Substances Control Act
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

General Guidelines for Brake Service. When changing the brake linings, the content of the friction materials on the vehicle may be unknown, so it is recommended to follow the guidelines given in “Work Practices and Engineering Controls for Brake and Clutch Inspection, Disassembly, Repair and Assembly – Mandatory” (29 CFR 1910.1001, Appendix F).

The safety data sheet is validated by

BN

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product.
Information in this safety data sheet cannot be used as a product specification.
Country-language: US-en