

HIWIN G02 SDS

(Safety Data Sheet)

Features

1. Low dust generation, suitable for clean room environment
2. Well wear resistance and wear protection for components
3. Long term grease, suitable for wide temperature range
4. Consists of synthetic hydrocarbon oil and special calcium soap. resistant to oxidation and ageing
5. Can be used in plastic/steel and plastic/plastic components, compatible with elastomers and plastic materials

Pack sizes



Basic properties

HIWIN G02	
Consistency enhancer	Special calcium soap
Color	Beige
Basic oil	Synthetic hydrocarbon oil
Service temperature range (°C)	-30 to 140
NLGI Grade	2
Viscosity (cst/40°C)	100
Drop point (°C)	>180
4-ball test	Wear scar diameter (µm) (ASTM D2266)
	474
Origin	Germany

1. Identification of the substance/mixtures and of the company/undertaking

- ◆ **Product details**

Trade name: HIWIN G02

Application of the substance / the preparation: Grease

Manufacturer/Supplier: HIWIN TECHNOLOGIES CORP.

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2. Hazards identification

- ◆ **GHS Classification:**

Not a hazardous substance or mixture.

- ◆ **GHS-Labeling:**

Not a hazardous substance or mixture.

Target Organs: None.

Signal Words: None.

Pictograms: None.

3. Composition/information on ingredients

- ◆ **Chemical nature**

Synthetic hydrocarbon oil : 70~90%

special calcium soap : 5~20%

Additive : 3~5%

Hazardous components

Chemical Name	CAS-No.	EC-No.	Concentration[%]
calcium special soap	1282612-32-1	--	20 - 30
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	270-128-1	1-2.5
2,5-bis(tert-dodecylthio)- 1,3,4-thiadiazole	59656-20-1	261-844-5	1-2.5
1,3,4-Thiadiazolidine-2,5- dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	--	939-692-2	1-2.5

4. First-aid measures

- ◆ **If inhaled:**

Remove person to fresh air. If signs/symptoms continue, get medical attention.

Keep patient warm and at rest.

If unconscious place in recovery position and seek medical advice.

Keep respiratory tract clear.

If breathing is irregular or stopped, administer artificial respiration.

♦ **In case of skin contact:**

Take off all contaminated clothing immediately.

Wash off immediately with soap and plenty of water.

Get medical attention immediately if irritation develops and persists.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

♦ **In case of eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.

If eye irritation persists, consult a specialist.

♦ **If swallowed:**

Move the victim to fresh air.

If unconscious place in recovery position and seek medical advice.

Keep respiratory tract clear.

Do not induce vomiting without medical advice.

Never give anything by mouth to an unconscious person.

♦ **Notes to physician**

Symptoms: No information available.

Risks: None known.

Treatment: No information available.

5. Fire-fighting measures

♦ **Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

♦ **Unsuitable extinguishing media:**

High volume water jet.

♦ **Specific hazards during firefighting:**

Fire may cause evolution of:

Carbon oxides.

Metal oxides.

Nitrogen oxides (NO_x).

Sulphur oxides.

♦ **Special protective equipment for firefighters:**

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

In the case of respirable dust and/or fumes, use self-contained breathing apparatus.

Exposure to decomposition products may be a hazard to health.

♦ **Further information:**

Standard procedure for chemical fires.

6. Accidental release measures

- ◆ **Personal precautions:**

Evacuate personnel to safe areas.

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

Avoid breathing dust.

Refer to protective measures listed in sections 7 and 8.

- ◆ **Environmental precautions:**

Try to prevent the material from entering drains or water courses.

Local authorities should be advised if significant spillages cannot be contained.

- ◆ **Methods for cleaning up:**

Clean up promptly by sweeping or vacuum.

Keep in suitable, closed containers for disposal.

7. Handling and storage

- ◆ **handling**

Advice on safe handling:

Avoid contact with skin and eyes.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the application area.

Wash hands and face before breaks and immediately after handling the product.

Do not get in eyes or mouth or on skin.

Do not get on skin or clothing.

Do not ingest

Do not repack.

These safety instructions also apply to empty packaging which may still contain product residues.

Keep container closed when not in use.

- ◆ **Storage**

Requirements for storage areas and containers:

Store in original container.

Keep container closed when not in use.

Keep in a dry, cool and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store in accordance with the particular national regulations.

Keep in properly labelled containers.

8. Exposure controls/personal protection

- ◆ **Components with workplace control parameters s**

Contains no substances with occupational exposure limit values.

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment**Respiratory protection:**

Not required; except in case of aerosol formation.

Filter type P

Hand protection:

For prolonged or repeated contact use protective gloves.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

In case of contact through splashing:

Nitrile rubber

Manufacturer, importer, supplier: Class 1

Eye protection:

Tightly fitting safety goggles

Hygiene measures:

Wash face, hands and any exposed skin thoroughly after handling.

Protective measures:

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

9. Physical and chemical properties

♦ Information on basic physical and chemical properties

Physical state : paste.

Colour: beige.

Odour: characteristic

Odour threshold : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flammability (solid, gas): Combustible Solids

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable

Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Water solubility: insoluble

Solubility in other solvents: No data available

Partition coefficient n-octanol/water (Log Kow) : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Density : 0.91 g/cm³(20 °C)

Relative density : 0.91 (20 °C) Reference substance: Water (The value is calculated)

Relative vapour density: No data available

Particle size : Not available

Particle size distribution : Not available

Particle shape : Not available

Particle aspect ratio : Not available

Particle aggregation state : Not available

Particle agglomeration state : Not available

Particle specific surface area : Not available

Particle dustiness : Not available

◆ **Other information**

Information with regard to physical hazard classes

No additional information available.

Other safety characteristics

No additional information available.

10. Stability and reactivity

- ◆ **Conditions to avoid**: No conditions to be specially mentioned.
- ◆ **Materials to avoid**: No materials to be especially mentioned..
- ◆ **Hazardous decomposition products**:No decomposition if stored and applied as directed.
- ◆ **Thermal decomposition**:Note: No data available.

11. Toxicological information

- ◆ **Acute toxicity**
- ◆ **Acute oral toxicity**
 - calcium special soap**:
LD50: > 2.000 mg/kg
Special: Rat
Method: DIRECTIVE 67/548/EEC, Annex V, B.1.
 - Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene**:
LD50: > 5.000 mg/kg
Special: Rat
Method: OECD Test Guideline 401.
 - 2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole**:

LD50: > 5.000 mg/kg

Special: Rat

Method: OECD Test Guideline 401.

Acute inhalation toxicity: Remarks: This information is not available.

- ◆ **Acute dermal toxicity**

calcium special soap:

LD50: > 2.000 mg/kg

Special: Rat

Method: OECD Test Guideline 402.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

LD50: > 2.000 mg/kg

Special: Rat

Method: OECD Test Guideline 402.

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

LD50: > 5.000 mg/kg

Special: Rat

Method: OECD Test Guideline 402.

- ◆ **Skin corrosion/irritation**

Skin irritation: Remarks: This information is not available.

- ◆ **Serious eye damage/eye irritation:**

Eye irritation: Remarks: This information is not available.

- ◆ **Respiratory or skin sensitization:**

Sensitisation: Remarks: This information is not available.

- ◆ **Germ cell mutagenicity**

Genotoxicity in vitro: Remark: No data available.

Genotoxicity in vivo: Remark: No data available.

- ◆ **Germ cell mutagenicity**

Remarks

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Not classifiable as a human carcinogen.

Teratogenicity

Remarks

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Animal testing did not show any mutagenic effects.

Carcinogenicity

Remarks

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: No toxicity to reproduction

- ◆ **Target Organ Systemic Toxicant - Single exposure**

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.

- ◆ **Target Organ Systemic Toxicant - Repeated exposure**

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Remarks: The substance or mixture is not classified as specific target organ toxicant, single exposure.

- ◆ **Aspiration hazard**

Aspiration toxicity: This information is not available.

Further information: Information given is based on data on the components and the toxicology of similar products.

- ◆ **Information on other hazards**

Endocrine disrupting properties

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Remarks: Information given is based on data on the components and the toxicology of similar products.

12. Ecological information

- ◆ **EcoToxicity effects**

Toxicity to fish: Remark: No data available.

Toxicity to daphnia and other aquatic invertebrates: Remark: No data available.

Toxicity to algae: Remark: No data available.

Toxicity to bacteria: Remark: No data available.

- ◆ **Elimination information (persistence and degradability)**

Bioaccumulation: Remark:

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Mobility: Remark: No data available.

Distribution among environmental compartments: Remark: No data available.

Biodegradability: Remark: No data available.

Physico-chemical removability: Remark: No data available.

- ◆ **Further information on ecology**

Acute aquatic toxicity

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Harmful to aquatic life

Chronic aquatic toxicity

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Harmful to aquatic life with long lasting effects.

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole:

Results of PBT assessment

Benzenamine, N-phenyl-reaction products with 2,4,4-trimethylpentene: Non-classified PBT substance, Non-classified vPvB substance

2,5-bis(tert-dodecyldithio)-1,3,4-thiadiazole: Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information: No information on ecology is available.

- ◆ **Endocrine disrupting properties:**

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

- ◆ **Other adverse effects:**

Additional ecological information: No information on ecology is available.

13. Disposal considerations

Product:

The product should not be allowed to enter drains, water courses or the soil..

Contaminated packaging:

Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

- ◆ **UN number or ID number**

ADN Not regulated as a dangerous good

ADR Not regulated as a dangerous good

RID Not regulated as a dangerous good

IMDG Not regulated as a dangerous good

IATA Not regulated as a dangerous good

- ◆ **UN proper shipping name**

ADN Not regulated as a dangerous good

ADR Not regulated as a dangerous good

RID Not regulated as a dangerous good

IMDG Not regulated as a dangerous good

IATA Not regulated as a dangerous good

- ◆ **Transport hazard class(es)**

ADN Not regulated as a dangerous good

ADR Not regulated as a dangerous good

RID Not regulated as a dangerous good

IMDG Not regulated as a dangerous good

- IATA Not regulated as a dangerous good
- ♦ **Packing group**
 - ADN Not regulated as a dangerous good
 - ADR Not regulated as a dangerous good
 - RID Not regulated as a dangerous good
 - IMDG Not regulated as a dangerous good
 - IATA(Cargo) Not regulated as a dangerous good
 - IATA(Passenger) Not regulated as a dangerous good
- ♦ **Environmental hazards**
 - ADN Not regulated as a dangerous good
 - ADR Not regulated as a dangerous good
 - RID Not regulated as a dangerous good
 - IMDG Not regulated as a dangerous good
- ♦ **Special precautions for user**
 - Not applicable
- ♦ **Maritime transport in bulk according to IMO instruments**
 - Remarks :** Not applicable for product as supplied

15. Regulatory information

16. Other information

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