HIWIN®
Motion Control and System Technology

HIWIN G04 SDS
(Safety Data

Features

1. Well wear resistance under high speed conditions
2. Low friction force under high speed conditions
3. Water-resistant

Pack sizes

Basic properties

HIWIN G04		
Consistency enhancer		Lithium soap
Color		Beige
Basic oil		Ester/PAO
Service temperature range (℃)		-35 to 120
NLGI Grade		2
Viscosity (cst/40℃)		25
Drop point (℃)		>225
4-ball test	Wear scar diameter (μm) (ASTM D2266)	418
Origin		Germany

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

- **Product details**

  Trade name: HIWIN G04

  Application of the substance / the preparation: Grease

  Manufacturer/Supplier: HIWIN TECHNOLOGIES CORP.

  No.7, Jingke Road, Taichung Precision Machinery Park, Taichung 40852, Taiwan

  Tel.: +886-4-23594510 **Fax:** +886-4-23594420

  Information in case of emergency: +886-4-23594510

2. Hazards identification

- **Classification of the substance or mixture**

  Classification according to Regulation (EC) No. 1272/2008 [CLP]

  None.

- **Label elements**

  Labelling according to Regulation (EC) No. 1272/2008 [CLP]

  Special rules for supplemental label elements for certain mixtures.

  EUH210 Safety data sheet available on request.

- **Other hazards**

  None.

3. Composition/information on ingredients

- **Mixtures**

  Hazardous ingredients

  O,O,O-triphenyl phosphorothioate ;

  REACH registration No. : 01-2119979545-21-xxxx;

  EC No. : 209-909-9;

  CAS No. : 597-82-0.

  Weight fraction : ≥ 1 - < 5 %.

  Classification 1271/2008 [CLP] : Aquatic Chronic 4 ; H413.

  Further ingredients

  SHC (Synthetic hydrocarbon).

  Ester oil.

  Metallic soap.

  Additives not to declare.

  Additional information

  Full text of H- and EUH-phrases: see section 16.

4. First-aid measures

- **Description of first aid measures**

General information:

When in doubt or if symptoms are observed, get medical advice.

Following inhalation:

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap. In case of skin irritation, consult a physician.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion:

Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Most important symptoms and effects, both acute and delayed

No information available**.**

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

  None.

5. Fire-fighting measures

- **Extinguishing media**

  Suitable extinguishing media:

  Dry extinguishing powder.

  Carbon dioxide (CO2).

  ABC-powder BC-powder Foam.

  Dry sand.

  Unsuitable extinguishing media:

  Water.

  Strong water jet.

  High power water jet.

- **Special hazards arising from the substance or mixture**

  Hazardous combustion products:

  Carbon monoxide (CO).

  Carbon dioxide (CO2).

  Burning produces heavy smoke.

  Hazardous combustion products:

  Sulphur dioxide (SO2).

- **Advice for firefighters**

  Use suitable breathing apparatus.

- **Additional information**

  Collect contaminated fire extinguishing water separately. Do not allow entering drains or

surface water.

6. Accidental release measures

Special danger of slipping by leaking/spilling product.

- **Personal precautions, protective equipment and emergency procedures**
  None.
- **Environmental precautions:**
  Do not allow to enter into surface water or drains.
  Do not allow to enter into soil/subsoil.
  Ensure waste is collected and contained.
  Make sure spills can be contained, e.g. in sump pallets or kerbed areas.
- **Methods and material for containment and cleaning up:**
  Take up mechanically, placing in appropriate containers for disposal.
  Soak up inert absorbent and dispose as waste requiring special attention.
  Suitable material for taking up: Universal binder Kieselguhr.
- **Reference to other sections**
  None.

7. Handling and storage

- **Precautions for safe handling**
  Protective measures
  It is recommended to design all work processes always so that the following is excluded: Generation/formation of mist Avoid: Inhalation of vapours or spray/mists. Skin contact Eye contact Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.
- **Conditions for safe storage, including any incompatibilities**
  Hints on joint storage
  Storage class: 13.
  Storage class (TRGS 510): 11.
  Keep away from
  Food and feedingstuffs.
  Further information on storage conditions
  Keep/Store only in original container.
  Keep container tightly closed.
  Protect against UV-radiation/sunlight Humidity. Contact with air/oxygen. Dust deposits.
- **Specific end use(s)**
  None.

8. Exposure controls/personal protection

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Take the precautions customary when handling chemicals. Change contaminated, saturated clothing. Keep away from sources of ignition. - No smoking.

- **Control parameters**

  None.

- **Exposure controls**

  Personal protection equipment

  Eye / face protection

  Eye protection: not required. Avoid: Eye contact.

  Recommended eye protection articles

  DIN EN 166.

  Skin protection

  Hand protection

  Hand protection is not required.

  By long-term hand contact: Wear suitable gloves.

  Suitable material : NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber).

  Recommended glove articles : DIN EN 374 DIN EN 420.

- **Respiratory protection**

  No special measures are necessary. Avoid: Inhalation of vapours or spray/mists.

9. Physical and chemical properties

- **Information on basic physical and chemical properties**

  Colour: beige.

  Safety relevant basis data

  Physical state : pasty.

  Initial boiling point and boiling range : (1013 hPa) > 300°C.

  Decomposition temperature : (1013 hPa) > 200°C.

  Flash point : (1013 hPa) > 200°C.

  Vapour pressure : (50°C) < 0,1hPa.

  Density : (20°C) = 0,91 g/cm^3.

- **Other information**

  None.

10. Stability and reactivity

- **Reactivity**

  No information available.

- **Chemical stability**

  No information available.

- **Possibility of hazardous reactions**

No information available.

- **Conditions to avoid**
  No information available.
- **Incompatible materials**
  Oxidising agent, strong.
- **Hazardous decomposition products**
  Carbon monoxide (CO).
  Carbon dioxide (CO2).
  Gases/vapours, harmful.

11. Toxicological information

- **Information on toxicological effects**
  By analogy.
  Acute effects
  Acute oral toxicity
  Parameter: LD50.
  Exposure route: Oral.
  Species: Rat.
  Effective dose: > 5000 mg/kg.
  Acute dermal toxicity
  Parameter: LD50.
  Exposure route: Dermal.
  Species: Rabbit.
  Effective dose: > 5000 mg/kg.
- **Irritant and corrosive effects**
  Irritation to eyes
  slightly irritant but not relevant for classification.

12. Ecological information

- **Toxicity**
  Aquatic toxicity
  Acute (short-term) fish toxicity
  Parameter: LC50 (O,O,O-triphenyl phosphorothioate ; CAS No. : 597-82-0).
  Species: Brachydanio rerio (zebra-fish).
  Evaluation parameter: Acute (short-term) fish toxicity.
  Effective dose: > 100 mg/l.
  Exposure time: 96 h.
  Method: OECD 203.
  Acute (short-term) daphnia toxicity
  Parameter: EC50 (O,O,O-triphenyl phosphorothioate ; CAS No. : 597-82-0).
  Species: Daphnia magna (Big water flea).

Evaluation parameter: Acute (short-term) daphnia toxicity.
Effective dose: > 100 mg/l.
Exposure time: 48 h.
Method: OECD 202.
Acute (short-term) algae toxicity
Parameter: EC50 (.O,O,O-triphenyl phosphorothioate ; CAS No. : 597-82-0).
Species: Desmodesmus subspicatus.
Evaluation parameter: Acute (short-term) algae toxicity.
Effective dose: > 100 mg/l.
Exposure time: 72 h.
Method: OECD 201.
Bacteria toxicity
Parameter: EC50 (.O,O,O-triphenyl phosphorothioate ; CAS No. : 597-82-0).
Species: Activated sludge.
Evaluation parameter: Bacteria toxicity.
Effective dose: > 100 mg/l.
Exposure time: 3 h.
Method: OECD 209.

- **Persistence and degradability**
  Biodegradation
  Not readily biodegradable (according to OECD criteria).
- **Bioaccumulative potentia**l
  No information available.
- **Mobility in soil**
  No information available.
- **Results of PBT and vPvB assessment**
  No information available.
- **Other adverse effects**
  No information available.
- **Additional ecotoxicological information**
  None.
- **Overall evaluation**
  If product enters soil, it will be mobile and may contaminate groundwater. In accordance with the required stability the product is poorly biodegradable.

13. Disposal considerations

Dispose according to legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

- **Waste treatment methods**
  Send to a hazardous waste incinerator facility under observation of official regulations. Collect the waste separately. Evidence for disposal must be provided.

14. Transport information

- **UN number**
  No dangerous goods in sense of this transport regulation.
- **UN proper shipping name**
  No dangerous goods in sense of this transport regulation.
- **Transport hazard class(es)**
  No dangerous goods in sense of this transport regulation.
- **Packing group**
  No dangerous goods in sense of this transport regulation.
- **Environmental hazards**
  No dangerous goods in sense of this transport regulation.
- **Special precautions for user**
  None.
- **Air transport ICAO/IATA-DGR**
  No hazardous goods as defined by prescriptions.

15. Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  National regulations
  Technische Anleitung Luft (TA-Luft)
  Weight fraction (Number 5.2.5. I): < 1 %.
  Water hazard class (WGK)
  Class: 1 (Slightly hazardous to water) Classification according to VwVwS.
- **Chemical Safety Assessment**
  No information available.

16. Other information

- **Indication of changes**
  02. Label elements · 03. Hazardous ingredients · 14 Air transport ICAO/IATA-DGR.
- **Abbreviations and acronyms.**
  None.
- **Key literature references and sources for data**
  None.
- **Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**
  No information available.
- **Relevant R-, H- and EUH-phrases (Number and full text)**
  H413 May cause long lasting harmful effects to aquatic life.

- **Training advice**

  None.
- **Additional information**

  None.

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