

# HIWIN G04 SDS

(Safety Data Sheet)

## 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 (°C)	-35 to 120
NLGI Grade	2
Viscosity (cst/40°C)	25
Drop point (°C)	>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.

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**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

- ◆ **Chemical characterization**

Components	CAS-No.	EC-No.	Concentration[%]
Base oil	8042-47-5	232-455-8	85-90
Additive package comprising thickener, AW, EP additive	7620-77-1/1310- 66-3/ 106-14-9/68411- 46-1/122-39-4	231-536-5/603-454- 3/203-366-1/270- 128-1/204-539-4	10-15

- ◆ **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 :  $\geq 1 - < 5$  %.

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 (CO<sub>2</sub>).

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 (CO<sub>2</sub>).

- Burning produces heavy smoke.

- Hazardous combustion products:**

- Sulphur dioxide (SO<sub>2</sub>).

- ◆ **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.

**Physical state :** pasty.

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

**Odour threshold :** Not available

**Melting point :** Not available

**Freezing point :** Not available

Boiling point : Not available

Flammability : Not available

Explosive limits : Not applicable

Lower explosive limit (LEL) : Not applicable

Upper explosive limit (UEL) : Not applicable

**Flash point** : (1013 hPa) > 250°C.

Auto-ignition temperature : Not applicable

**Decomposition temperature** : (1013 hPa) > 250°C.

pH : Not available

pH solution : Not available

Viscosity, kinematic : Not applicable

Solubility : Negligible (in water).

Partition coefficient n-octanol/water (Log Kow) : Not available

Vapour pressure : Not available

**Vapour pressure** : (50°C) < 0.1hPa.

**Density** : (20°C) = 0.91 g/cm<sup>3</sup>.

Relative density : Not available

Relative vapour density at 20 °C : Not applicable

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

◆ **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 (CO<sub>2</sub>).  
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.
- ◆ **Information on other hazards**  
No information available

## 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**

Overall evaluation on the mixture: Not readily biodegradable (according to OECD criteria)

- ◆ **Bioaccumulative potential**

No information available.

- ◆ **Mobility in soil**

No information available.

- ◆ **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

- ◆ **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.

- ◆ **Endocrine disrupting properties:**

Endocrine disrupting potential: None known.

- ◆ **Other adverse effects**

This product does not contain nanoparticles.

## 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 or ID 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.
- ◆ **Maritime transport in bulk according to IMO instruments**  
No transport as bulk according to IBC Code.

## 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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