



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
GB/T 16483-2008, GB/T 17519-2013

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

## 1. Identification

### Product identifier

**Product Name** HHD 5539BK  
**Pure substance/mixture** Mixture

### Details of the supplier of the safety data sheet

#### Responsible Party

Bostik (Shanghai) Management Co., Ltd  
Building 1, No.968 Guanghai Road, Minhang District  
Shanghai, China  
Tel: 021-60763101  
Fax: 021-60763133

See section 16 for more information.

**E-mail address** SDS.AP@Bostik.com

### Emergency telephone number

**Emergency Telephone** Chemtrec: 1-800-424-9300 (US) , 1-703-527-3887 (Outside U.S.)  
**Chemtrec** : China 4001-204937  
CHEMTREC (Chemical Transportation Emergency Center)

**Emergency Telephone** National contact  
0532-8388 9090 (China only)

### Recommended use of the chemical and restrictions on use

**Recommended use** Adhesive  
**Restrictions on use** No information available

## 2. Hazard(s) identification

### **Emergency Overview**

Irritating to skin  
May cause allergic respiratory reaction  
May cause allergic skin reaction  
Contains a known or suspected carcinogen

**Appearance** Solid **Physical state** Solid **Odor** Odorless

### Classification of the substance or mixture

<b>Skin corrosion/irritation</b>	Category 3
<b>Respiratory sensitization</b>	Category 1A
<b>Skin sensitization</b>	Category 1A
<b>Carcinogenicity</b>	Category 2

### Label elements

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022



**Signal word** Danger

## Hazard statements

H316 - Causes mild skin irritation  
H317 - May cause an allergic skin reaction  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H351 - Suspected of causing cancer

## Precautionary statements

### Prevention

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P284 - In case of inadequate ventilation wear respiratory protection  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Heat resistant gloves are recommended when handling molten materials

### Response

P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor  
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P362 + P364 - Take off contaminated clothing and wash it before reuse

### Storage

P405 - Store locked up

### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

### Other hazards

Not applicable.

## 3. Composition/information on ingredients

### Substance

Not applicable.

### Mixture

Chemical name	CAS No	Weight-%
4,4'-Methylenediphenyl diisocyanate	101-68-8	1 - <5

\*\*\* Any remaining ingredients are not hazardous

## 4. First-aid measures

### Description of necessary first aid measures

**General advice** Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

medical advice/attention.

<b>Inhalation</b>	May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
<b>Ingestion</b>	May produce an allergic reaction. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

## **Most important symptoms/effects, acute and delayed**

### **Symptoms**

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/or wheezing. Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

## **For emergency responders**

### **Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.

## **Note to physicians**

May cause sensitization in susceptible persons. Treat symptomatically.

## **5. Fire-fighting measures**

### **Extinguishing media**

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical** Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact.

### **Hazardous combustion products**

Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Hydrogen cyanide. Isocyanates.

## **Special protective actions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information** Refer to protective measures listed in Sections 7 and 8.

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up**

Prevent further leakage or spillage if safe to do so.  
Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## 7. Handling and storage

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

See Section 8 for information on appropriate personal protective equipment

**Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Keep at temperatures between 59 and 77 °F / 15 and 25 °C. Keep at temperatures between 50 and 95 °F / 10 and 35 °C.

## 8. Exposure controls/personal protection

**Occupational exposure limits**

Chemical name	China	ACGIH TLV
4,4'-Methylenediphenyl diisocyanate - 101-68-8	TWA: 0.05 mg/m <sup>3</sup> STEL: 0.1 mg/m <sup>3</sup> Sensitizer+	TWA: 0.005 ppm

Note See section 16 for terms and abbreviations

**Biological occupational exposure limits**

No data available

**Monitoring and observation processes**

No applicable information was found.

**Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

**Hand protection**

Heat resistant gloves are recommended when handling molten materials. Gloves must conform to standard EN 407. Unsuitable protective clothing. Wet gloves.

**Skin and body protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. During spraying wear suitable respiratory equipment.

**Recommended filter type:**

Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Organic gases

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

and vapors filter conforming to EN 14387.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Solid
Color	Black
Physical state	Solid
Odor	Odorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
pH (as aqueous solution)	No data available	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	No data available	
Flash point	No data available	
Evaporation rate	No data available	
Flammability	No data available	
Flammability Limit in Air		
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	
Relative vapor density	No data available	
Relative density	No data available	
Water solubility	No data available	
Solubility(ies)	No data available	
Partition coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Kinematic viscosity	No data available	
Dynamic viscosity	3000 - 5000 mPa s	@ 110 °C
<u>Additional information</u>		
Oxidizing properties	No information available	
Solid content (%)	No information available	
Density	1.0 - 1.1 g/cm <sup>3</sup>	

## 10. Stability and reactivity

<u>Stability</u>	Stable under normal conditions.
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Conditions to avoid</u>	None known based on information supplied.
<u>Incompatible materials</u>	None known based on information supplied.
<u>Hazardous decomposition products</u>	None known based on information supplied.

## 11. Toxicological information

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

## Product Information

**Inhalation** Specific test data for the substance or mixture is not available. May cause sensitization in susceptible persons. (based on components).

**Eye contact** Based on available data, the classification criteria are not met.

**Skin contact** Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitization by skin contact. Causes mild skin irritation.

**Ingestion** Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation".

**Symptoms** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Prolonged contact may cause redness and irritation.

## Acute toxicity

### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-dust/mist) 75.00 mg/l

## Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
4,4'-Methylenediphenyl diisocyanate	=31600 mg/kg (Rattus) = 9200 mg/kg (Rattus)	LD 50 > 9400 mg/kg (Oryctolagus cuniculus) OECD 402	=1.5 mg/L (Rattus) 4 h

**Skin corrosion/irritation** Classification based on data available for ingredients.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

Component Information					
4,4'-Methylenediphenyl diisocyanate (101-68-8)					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye	0.1 mL	24 hours	Non-irritant

**Respiratory or skin sensitization** May cause an allergic skin reaction.

Component Information			
4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Method	Species	Exposure route	Results
OECD GD 39	Rat	Inhalation	Sensitizing

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

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	China	IARC
4,4'-Methylenediphenyl diisocyanate	-	Group 3

## Legend

**IARC (International Agency for Research on Cancer)**  
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Component Information		
4,4'-Methylenediphenyl diisocyanate (101-68-8)		
Method	Species	Results
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat	Limited evidence of a carcinogenic effect

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

**Specific target organ toxicity (single exposure)** Based on available data, the classification criteria are not met.

**Specific target organ toxicity (repeated exposure)** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12. Ecological information

### Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
4,4'-Methylenediphenyl diisocyanate	ErC50 (72h) >1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)	>1000 mg/l (Danio rerio)	EC50 (24H) >1000 mg/L Daphnia magna

**Persistence and degradability** No information available.

**Bioaccumulative potential** There is no data for this product.

### Component Information

Chemical name	Partition coefficient
4,4'-Methylenediphenyl diisocyanate	4.51

Chemical name	PBT and vPvB assessment
4,4'-Methylenediphenyl diisocyanate 101-68-8	The substance is not PBT / vPvB

**Mobility in soil** No information available.

## 13. Disposal considerations

### Waste chemicals

**Waste from residues/unused products** Dispose of waste in accordance with environmental legislation. Dispose of in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

## 14. Transport information

**IMDG** Not regulated

**IATA** Not regulated

**China** Not regulated

**ADR** Not regulated

### Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

## 15. Regulatory information

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

#### National regulations

#### SDS and Label prepared in compliance with the following regulations:

Decree No. 591 of the State Council of the People's Republic of China

General Rule for classification and hazard communication of chemicals, GB 13690

Series standards of Safety rules for classification, precautionary labeling and precautionary statements of chemicals, GB 30000.2~GB 30000.29

General rules for preparation of precautionary label for chemicals, GB 15258

Safety data sheet for chemical products—Content and order of sections, GB/T 16483 GB/T17519

#### Regulations on the Control over Safety of Hazardous Chemicals

China - Catalog of Hazardous Chemicals - Hazardous Chemicals

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed

Chemical name	China - Catalog of Hazardous Chemicals - Hazardous Chemicals	Weight-%
4,4'-Methylenediphenyl diisocyanate 101-68-8	Listed	1 - <5

List of hazardous chemicals under priority management

Not applicable

#### Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used

Inventory of highly toxic goods

Not applicable

#### GB33372-2020

We certify that goods delivered comply with the limit of volatile organic compounds content in adhesive regulated in GB33372-2020, in agreement with our Asia Technical Center and regulatory team

#### Regulations for Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

Not applicable

#### International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable



# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

## Europe

### Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

#### SVHC: Substances of Very High Concern for Authorization:

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

#### 2015/863/EU - RoHS

This product does not contain Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) above the regulated limit mentioned in this regulation

## 16. Other information

### Local Contacts

Bostik Findley (Malaysia) Sdn. Bhd Lot 112 & 113, Kawasan Perindustrian senawang, seremban, negeri sembilan, Malaysia Tel: 606-6789788 Fax: 606-6789766	Bostik Asia Pacific 1 Science Park Road, #04-01/05 West Wing, The Capricorn, Singapore Science Park II, Singapore 117528 Tel: +65-6419-9161 Fax: +65-6419-9150	Bostik (Thailand) Co.,Ltd. 1/32, 16A th Floor, Bangnathani Building, Soi Bangna-Trad 34, South Bangna, Bangna, Bangkok, Thailand Tel : 66 (0) 2361 6460-7 Fax : 66 (0) 2361 6469
Bostik Philippines, Inc. 35/F Raffles Corporate Center, F. Ortigas Jr. Road Ortigas Business Center, Pasig city, Phillippines Tel: 632-900-5656 Fax: 632-900-5622	Bostik Indonesia Setiabudi Atrium Building, Level 2, Suite 203 A Jl. HR Rasuna Said Jakarta Indonesia 12920 Tel: 62 21 521 0404 Fax: 62 21 521 0554	Bostik Vietnam Company Limited 10 Doc Lap Avenue, VSIP 1. Thuan An District, BinhDuong Province. Viet Nam. Tel: 84 650 3765105 Fax: 84 650 3765109
Bostik India Private Ltd 124/1 & 124/2A Kachanayakanahalli Behind Bommasandra Indl.Area Off Hosur Road, Hennagara Post, Anekal Taluk Bangalore - 562106, Karnataka, INDIA Tel: 0091-80-27833520 Fax: 00 91-80-27831324 Email: Bostikinfo.India@bostik.com	Jiangsu Bositk Adhesive Co.,Ltd No.15-9, Xinggang Road, Changshu Economic Development Zone Jiangsu Province 215536 Tel: 0086-512-52266000 Fax: 0086-512-52266020	Bostik Findley (China) Co.,Ltd No.75, Xin Zhuang 2 Road, Yong He District, GETDD Guangzhou, 511356, China TEL: 020 -32226211 FAX: 020 -32226261

Revision date

06-Jul-2022

Revision Note

\*\*\*Indicates updated data since last publication.

### Abbreviations and acronyms

#### Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

# SAFETY DATA SHEET

HHD 5539BK  
Revision Number 1

Revision date 06-Jul-2022  
Supersedes Date: 06-Jul-2022

---

vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure

## Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

## Disclaimer

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

**End of Safety Data Sheet**