Material Safety Data Sheet

HIFIFAST YELLOW HF6R

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Name	HIFIFAST YELLOW HF6R
Chemical Characterization	Benzimidazolone /monoazo C.I. Pigment Yellow 181 C. I. No.:11777
company	ANSHAN HIFICHEM Co., Ltd. Address: No.8, 1st Bao An Road, Teng Ao Industrial Park, Anshan 114225, P. R. China
Emergency Health/Environmental Phone	86 21 3100 7988

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

The product is not classified as hazardous according to the CLP Regulation.

2.2. Label elements

Labelling according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

The product does not require classification and labelling as hazardous according to CLP/GHS.

2.3. Other hazards

According to the present state of knowledge provided this product is handled correctly,there is no danger to humans or the environment
Organic substances in powder form may have the potential to cause dust explosions.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Chemical characterization
C.I.PIGMENT YELLOW 181

4. FIRST AID MEASURES

4.1. Description of first aid measures

General information	Seek medical assistance if discomfort continues
After inhalation	Immediately seek fresh air after inhaling of dust, vapour or aerosol.
After contact with skin	In case of contact with skin wash off immediately with plenty of water
After contact with eyes	Rinse the affected eye with plenty of water, at the same time keep the unaffected eye well protected.
After ingestion	If swallowed do not induce vomiting,seek medical advice and show safety datasheet or label

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	No symptoms known currently.
Hazards	No hazards known at this time.

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

Treatment	Treat symptomatically.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	water spray jet foam
Extinguishing media that must not be used for safety reasons	Full water jet carbon dioxide dry powder

5.2. Special hazards arising from the substance or mixture

In case of fires, hazardous combustion gases are formed: Carbon monoxide (CO)
Carbon dioxide (CO2)
Nitrogen oxides (NOx)

5.3. Advice for firefighters

Special protective equipment for firefighting	Use self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable personal protective equipment.
Avoid dust formation.
Keep away sources of ignition.

6.2. Environmental precautions

Do not allow entry to drains,water courses or soil

6.3. Methods and material for containment and cleaning up

Take up mechanically
Avoid dust formation and electrical charging (sparking) because dust explosion might occur.
When picked up, treat material as prescribed under heading "Disposal".

6.4. Reference to other sections

Additional information

Keep away sources of ignition, stop running engines, no smoking.
Take up in the dry state without forming dust. Consider Recycling
Information regarding Safe handling, see chapter 7.
Information regarding Waste Disposal, see chapter 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

When used and handled appropriately no special measures are needed
Avoid dust formation.

Hygiene measures

Wash hands before breaks and after work.
Use barrier skin cream.
Remove soiled or soaked clothing immediately and clean thoroughly before using again.

Advice on protection against fire and explosion

Take precautionary measures against build-up of electrostatic charges, e.g earthing during loading and off-loading operations.
Keep away from sources of ignition
Dust can form an explosive mixture with air.
Observe the general rules of industrial fire protection
Dust explosion class : ST1 Capable of dust explosion

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep in original packaging, tightly closed

Advice on storage compatibility

When used and handled as intended, none.
Do not store or transport together with foodstuffs

Further information on storage conditions

Keep container dry

Storage stability

Storage period > 12 month

7.3. Specific end use(s)

No further recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values

Exposure limit values are not available.

DNEL/DMEL values

DNEL/DMEL values are not available.

PNEC values

PNEC values are not available.

8.2. Exposure controls

General protective measures

Observe the usual precautions for handling chemicals.

Respiratory protection :	in case of dust, use dust-mask. mask, comb.gas/particle filter
Hand protection :	Nitrile rubber gloves. Minimum breakthrough time (glove): not determined Minimum thickness (glove): not determined Observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements
Eye protection :	safety glasses
Body protection :	working clothes

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state :	solid
Form :	Powder
Particle size :	10 µm Method : Laser diffraction with dispersion in dry air.
Colour :	yellow
Odour :	not specified
Odour threshold :	cannot be determined
pH value :	5,5 - 8,5
Melting point :	Method : DTA No melting point up to the decomposition temperature.
Boiling point :	not applicable
Sublimation temperature :	not applicable
Flash point :	Not applicable
Evaporation rate :	Not applicable
Flammability :	non flammable Combustibility test (Corresponding to EC Directive)
Upper explosive limit :	not tested.
Combustion number :	BZ1 Does not catch fire (20 °C)

Minimum ignition energy :	30 - 100 mJ with inductive electrical resistance
Vapour pressure :	Not applicable
Vapour density relative to air :	Not applicable
Relative Density:	not tested.
Solubility in water :	106,1 µg/l (23 °C) Method : ETAD method
Miscibility with water :	virtually insoluble
Soluble in ... :	1-octanol not tested.
Solubility/qualitative :	not tested.
Octanol/water partition coefficient (log Pow) :	-0,3 (22 °C) Method : other (calculated)
Ignition temperature :	Not applicable
Self-ignition temperature :	250 °C Method : VDI 2263 (Grewer)
Thermal decomposition :	320 °C (Heating rate : 3 K/min) Method : DTA Closed cup
Thermal decomposition :	150 °C Open cup at 20 bar air pressure
Viscosity (dynamic) :	Not applicable
Viscosity (kinematic) :	Not applicable
Oxidizing properties :	Type of oxidizing effect : no oxidizing properties There are no chemical groups associated with oxidising properties present in the molecule. not oxidizing

9.2. Other information

Density :	1,48 g/cm3 (20 °C)
Surface tension :	Based on chemical structure, no surface activity is expected or can be predicted.
Impact sensitivity :	Not impact-sensitive
Further information	No incompatible substance known.

10. STABILITY AND REACTIVITY

10.1. Reactivity

See section 10.3. "Possibility of hazardous reactions"

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Risk of dust explosions.
Stable.

10.4. Conditions to avoid

ignition
Keep away from heat, sparks, open flames, and other sources of ignition.

10.5. Incompatible materials

not known

10.6. Hazardous decomposition products

When handled and stored appropriately, no dangerous decomposition products are known
Nitrous oxides (NOx)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects Information related to the product itself:

Information related to the product itself:

Acute oral toxicity :	LD50 > 5.000 mg/kg (rat) Method : FDA method
Acute dermal toxicity :	not required
Acute inhalation toxicity :	LC50 > 709 mg/l (4 h, rat) Method : other By analogy with a similar product.
Irritant effect on skin :	non-irritant (24 h, rabbit) Method : FDA guideline
Irritant effect on eyes :	non-irritant (24 h, rabbit eye) Method : FDA guideline

Sensitization :	non-sensitizing Method : OECD 429
Repeated dose toxicity:	Sub-acute oral toxicity Route of application: gavage NOAEL: 1.000 mg/kg (Exposure time : 40 - 49 d, Frequency of treatment: once daily, Dose: 100 - 300 - 1000 mg/kg, Rats, male/female) Method : OECD Test Guideline 422 By analogy with a similar product. Repeated Dose Toxicity (subchronic study) Route of application: Oral The study is not necessary from a scientific perspective. Repeated Dose Toxicity (subchronic study) Route of application: inhalative The study is not necessary from a scientific perspective.
Genetic toxicity in vivo :	Micronucleus assay mouse (NMRI, male and female) gavage 30 h 50 - 500 - 5000 mg/kg Bone marrow cells Method : OECD Guide-line 474 other TS Negative
Genetic toxicity in vitro :	Test type : PRIVAL Modification of AMES Test For Azo Dyes Test system : Strains of Salmonella typhimurium. Concentration : 3 - 5000 Metabolic activation : with and without Result : Negative with and without metabolic activation Method : OECD 471
Assessment of mutagenicity :	It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests.
Assessment of carcinogenicity :	not available
Developmental toxicity/teratogenicity :	Route of application: gavage NOAEL: 1.000 mg/kg (Exposure time : 4 w (male), 7 w (female), Frequency of treatment: once daily, Dose: 100 - 300 - 1000 mg/kg, rat, male/female) NOAEL (maternal): 1.000 mg/kg (Exposure time : 4 w (male), 7 w (female), Frequency of treatment: once daily, Dose: 100 - 300 - 1000 mg/kg, rat, male/female) Method : other By analogy with a similar product.

Toxicity to reproduction/fertility :	One generation study NOAEL parent: 1.000 mg/kg (Exposure time : 4 w (male), 7 w (female), Frequency of treatment: once daily, Pre-mating exposure period, male: 14 d, Pre-mating exposure period, female: 14 d, Dose: 100 - 300 - 1000 mg/kg, rat, male/female) NOAEL F1: 1.000 mg/kg (Exposure time : 4 w (male), 7 w (female), Frequency of treatment: once daily, Pre-mating exposure period, male: 14 d, Pre-mating exposure period, female: 14 d, Dose: 100 - 300 - 1000 mg/kg, rat, male/female) Method : OECD 421 By analogy with a similar product. Two generation study The study is not necessary from a scientific perspective.
Assessment of toxicity to reproduction :	No reproductive toxicity to be expected.
Assessment of teratogenicity :	No teratogenic effects to be expected.
Specific target organ toxicity (STOT) - single exposure :	Assessment : No classification for STOT-Single exposure is required.
Specific target organ toxicity (STOT) - repeated exposure :	Assessment : No classification for STOT-Repeated exposure is required.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Information related to the product itself:

Fish toxicity :	EC0 1 mg/l (96 h, Zebra fish (Danio rerio)) Method : OECD Guide-line 203 By analogy with a similar product. For this material no values were determined. The classification is based on read across data analogous substances. LC50 > 1 mg/l (96 h, Zebra fish (Danio rerio)) Method : OECD Guide-line 203 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration.
Fish toxicity (chronic) :	not required
Daphnia toxicity :	EC0 100 mg/l (48 h, Daphnia magna) Method : OECD 202 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration. EC50 > 100 mg/l (48 h, Daphnia magna) Method : OECD 202 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration.

Daphnia toxicity (chronic) :	NOEC 1 mg/l (21 d, Daphnia magna) Analytical monitoring : yes Method : OECD 211, reproduction test By analogy with a similar product. The details of the toxic effect relate to the nominal concentration.
Algae toxicity :	EC50 (growth rate) > 1 mg/l (72 h, Scenedesmus subspicatus) Method : OECD 201 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration. NOEC (growth rate) 1 mg/l (72 h, Scenedesmus subspicatus) Method : OECD 201 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration. EC50 (biomass) > 1 mg/l (72 h, Scenedesmus subspicatus) Method : OECD 201 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration. NOEC (biomass) 1 mg/l (72 h, Scenedesmus subspicatus) Method : OECD 201 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration.
Bacteria toxicity :	NOEC 1.000 mg/l (3 h, activated sludge, domestic) Method : OECD 209 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration. EC50 > 1.000 mg/l (3 h, activated sludge, domestic) Method : OECD 209 By analogy with a similar product. The details of the toxic effect relate to the nominal concentration.
Toxicity to soil-dwelling organisms :	NOEC 1.000 mg/kg (56 d, Eisenia foetida) Method : OECD 222 By analogy with a similar product. LOEC > 1.000 mg/kg (56 d, Eisenia foetida) Method : OECD 222 By analogy with a similar product. (other soil dwelling arthropod) The study is not necessary from a scientific perspective.

Toxicity to terrestrial plants :	NOEC 1.000 mg/kg (21 d, Brassica napus) Method : OECD Guide-line 208 By analogy with a similar product. NOEC 1.000 mg/kg (21 d, Avena sativa) Method : OECD Guide-line 208 By analogy with a similar product. NOEC 1.000 mg/kg (21 d, Dicotyledonae: Glycine max (soybean)) Method : OECD Guide-line 208 By analogy with a similar product.
Sediment toxicity :	not tested.

12.2. Persistence and degradability

Information related to the product itself:

Physico-chemical eliminability :	This product is not readily biodegradable.
Biodegradability :	10 % (28 d, BOD in % of theoretical OD) not readily degradable Method : OECD 302 C By analogy with a similar product.

12.3. Bioaccumulative potential

Information related to the product itself:

Bioaccumulation:	Low potential for bioaccumulation (log Pow < 3).

12.4. Mobility in soil

Information related to the product itself:

Transport and distribution between environmental compartments :	adsorption (water - soil) Low potential for adsorption to soil (log Pow < 3).
Behaviour in environmental compartments	No known data.

12.5. Results of PBT and vPvB assessment Information related to the product itself:

No data available.

12.6. Other adverse effects

Information related to the product itself:

Additional ecotoxicological remarks

Do not allow to enter soil, waterways or waste water

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product

Product should be be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Uncleaned packaging

Packaging that cannot be cleaned should be disposed of as product waste

14. TRANSPORT INFORMATION

Section 14.1. to 14.5.

ADR	not restricted
ADN	not restricted
RID	not restricted
IATA	not restricted
IMDG	not restricted

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

(International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

15. REGULATORY INFORMATION

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

Other regulations

Apart from the data/regulations specified in this chapter, no further information is available concerning safety, health and environmental protection.

15.2. Chemical safety assessment

A Chemical Safety Assessment (CSA) is available for the substance, or for the component substances, contained in this product.

16. OTHER INFORMATION

Observe national and local legal requirements

Legend

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AOX	Adsorbable organic bound halogens
CAS	Chemical Abstracts Service
DMEL	Derived Minimal Effect Level (genotoxic substances)
DNEL	Derived No Effect Level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	Non Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative, Toxic
PEC	Predicted Environmental Concentration
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	International Rule for Transport of Dangerous Substances by Railway

SVHC	Substances of Very High Concern
vPvB	very Persistent and very Bioaccumulative
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Change to the last edition	3rd edition of the MSDS for this product (25th July, 2014)