



MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product & Company Information

Chemical Product: C.I. Pigment Blue 28 (Cobalt Aluminate Blue Spinel)

Company Information : HUNAN JUFA TECHNOLOGY CO.,LTD

Room 104, Unit 2, No. 6 building

Long Feng Jia Yuan, Shaziling, Xiangtan,
Hunan, China.

Emergency telephone no: 0086-731-52345997

Section 2. Composition/Information on Ingredients

<u>Ingredients:</u>	<u>CAS No:</u>	<u>EINECS</u>	<u>% Weight(Typical)</u>
Cobalt Aluminate Blue Spine	1345-16-0	215-610-4	100

Synonyms: C.I.Pigment Blue 28 ; C.I. Constitution #77346; CPMA #13-26-2

This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides. **

Section 3. Hazards Identification

EEC Risk Phrases: This document has been prepared in accordance with 91/155/EC, this product is not classified as hazardous according to {NOHSC:2011(1994)}&OHS Regulations 1999.

EEC Safety Phrases: Not applicable

Methods for Cleanup: See Section XI for Toxicological Information.

Section 4. First Aid Measures

If inhaled: If inhaled, remove to fresh air. If not breathing, give artificial respiration,



	preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
On ingestion:	If conscious, drink large quantities of water. Do Not induce vomiting. Get immediate medical attention. NEVER give anything by mouth to an unconscious person.
On contact with eyes:	On contact with eyes flush eyes with plenty of water for at least fifteen (15) minutes. Call a physician.
On skin contact:	On skin contact, wash thoroughly with soap and water.

Section 5. Fire Fighting Measures

Suitable extinguishing media:	This product will not burn. Use suitable extinguishing media for fighting surrounding fire.
Unsuitable extinguishing media:	Not applicable
Emitted when burned:	Not applicable
Special protective equipment:	This product will not burn. Use appropriate techniques for fighting surrounding fire.
Further information:	None

Section 6. Accidental Release Measures

Personal precautions:	Maintain appropriate dust control.
Environmental precautions:	Prevent contamination of soils, drains and surface water.
Methods for cleanup:	Transfer material into closed container for re-use or disposal.

Section 7. Handling and Storage

Handling:	Good housekeeping procedures should be followed to prevent dust during processing. Do not eat, drink or smoke in work areas. Wash thoroughly with soap and water after handling. Provide eye wash stations in areas of handling.
Storage:	Store material in a closed container. Normal warehousing.

Section 8. Exposure Controls/Personal Protection

Engineering controls/measures:	Use mechanical ventilation to keep dust below regulatory standards (see Section II). Design criteria usually cannot be specified in an MSDS because of its complexity.
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Personal Protective Equipment:

Respiratory protection: MSHA/NIOSH respirators approved for dusts TC-21C or NIOSH approved cartridges for Non-oil aerosols, N95, N99, N100 (42 CFR 84).

Hand protection: Rubber, PVC coated gloves, impermeable.

Eye protection: Safety Glasses with side shields, mono goggles.

Body protection: No special precautions (see hand protection).

General safety and hygiene measures: Good housekeeping procedures should be followed to prevent dust during processing.

As Regulated (Related Exposure Limits)	OSHA PEL ** (mg/m ³)	OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)	%Metal (Typical)	Sara 313
Cobalt metal,dust and fumes(as Co)	0.05	0.1	0.02	24	Yes

Section 9. Physical and Chemical Properties

Appearance: Blue Powder

Odor: No Odor

Melting point/melting range: Not applicable

Boiling point/boiling range: Not applicable

Flash point: Not applicable

Combustibility: Not applicable

Explosion limits:

 Lower Vol. %: Not applicable

 Upper Vol. %: Not applicable

Ignition temperature: Not applicable

Self-ignition: Not applicable

Self-ignition temperature: Not applicable

Explosion hazard: Not applicable

Fire promoting properties: Not applicable

Vapor pressure: Not applicable

Specific gravity: 4.3ASTM D-153

Bulk density: No data available

Packing density: No data available

Solubility in Water: Negligible



Solubility in other solvents:	Negligible
pH value:	8.5ASTM D-1208(7)
Octanol/water partition coefficient (log POW):	Not applicable
Viscosity:	Not applicable
Other information:	Not applicable

Section 10. Stability and Reactivity

Conditions to avoid:	None known
Materials to avoid:	None known
Hazardous reactions:	None known
Hazardous decomposition products:	None known

Section 11. Toxicological Information

Acute Toxicity

LD50/oral/rat:	> 10, 000 mg/kg (5)
LD50/inhal/rat:	Not tested
Sensitizing:	None expected
Primary skin irritation/rabbit:	No data available
Primary mucous membrane irritation/rabbit' eyes:	No data available

ADDITIONAL INFORMATION:

Repeated overexposure to this compound may cause eye, skin and respiratory tract irritation. Some compounds of the metals used in the manufacturing of this pigment Cobalt, have demonstrated various toxic properties . However, there is no evidence that this pigment has toxic characteristics.

Routes of Entry:

Eyes: No Skin: No Inhalation: Yes Ingestion: Yes

CARCINOGENICITY: NTP: No IARC Monographs: Yes

OSHA Regulated: No

IARC has classified cobalt and cobalt compounds as possibly carcinogenic to humans.(Group 2B, Monograph#52)

Signs and Symptoms of Exposure: Irritation of the eyes, skin and respiratory tract.



Medical Conditions Generally Aggravated by Exposure: Respiratory and skin disorders aggravated by dust.

Section 12. Ecological Information

Mobility:	No data available
Degradability:	No data available
Accumulation:	No data available
Short and long term effects on:	
Ecotoxicity:	No data available
Other adverse effects:	No data available

Section 13. Disposal Considerations

Substance:	Dispose of at an approved landfill in accordance with local, state, federal and national regulations.
Contaminated packaging:	Dispose of at an approved landfill in accordance with local, state, federal and national regulations.

Section 14. Transport Information

INTERNATIONAL

Land transport:	ADR/RID/GGVS/GGVE:	Not Regulated
Sea transport:	IMDG/GGVSee UN-No.:	Not Regulated
Air transport:	ICAO/IATA UN/ID-No.:	Not Regulated
<u>U.S.</u>	D.O.T. Classification:	Not Regulated
<u>CANADA</u>	Transport of dangerous goods:	Not Regulated

Section 15. Regulatory Information

Labeling according to EEC Directives: not regulated

SARA

SARA312:

Health: Immediate (Acute): No* Fire: None



Delayed (Chronic): Yes** Reactivity: None
Sudden release of pressure: None

*Not an acute hazard, however may cause irritation due to abrasiveness.

** See Section 11

SARA 313:

THIS PRODUCT CONTAINS A CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

100% Cobalt Compound

Inventories

The ingredients of this product have been listed in the following inventories:

Australia AICS:	Listed	
Canada DSL:	Listed	
Europe EINECS:	Listed	215-610-4
Japan MITI:	Listed	
Korean:	Listed	KE-07843
Philippine Draft:	Listed	
U.S.A. TSCA:	Listed	

HMIS Code: 1*00

Section 16. Other Information

1. Documentation of the Threshold Limit Values, 6th Edition, ACGIH, 1991.
2. Pocket Guide to Chemical Hazards, NIOSH/OSHA, June, 1997
3. Occupational Diseases "A Guide to Their Recognition", U.S. DHEW (NIOSH), June 1977.
4. Occupational Health Guidelines for Chemical Hazards, Vol. I., OSHA, Sept., 1978

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