

SUDARSHAN

SUDAFAST™ BLUE 2764

Sudarshan Chemical Industries Limited

Version No: 9.0

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

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S.GHS.U.S.A.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	SUDAFAST™ BLUE 2764
Chemical Name	C. I. PIGMENT BLUE 15:1
Proper shipping name	Not Applicable
Chemical formula	C32H16CuN8
Other means of identification	Not Available
CAS number	147-14-8

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Colouring matter in Plastics
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Details of the manufacturer/importer

Registered company name	Sudarshan Chemical Industries Limited
Address	162 Wellesley Road Pune 411 001 India Not applicable
Telephone	+91 20 260 58888 / +91 20 262 26200
Fax	+91 20 260 58222
Website	Not Available
Email	fmazzella@sudarshan.com

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	+1 800 222 1222
Other emergency telephone numbers	-

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture



GHS Classification	Not Applicable
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Label elements

GHS label elements	Not Applicable
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SIGNAL WORD	NOT APPLICABLE
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Hazard statement(s)

Not Applicable

Precautionary statement(s): Prevention

Not Applicable

Precautionary statement(s): Response

Not Applicable

Precautionary statement(s): Storage

Not Applicable

Precautionary statement(s): Disposal

Not Applicable

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**Substances**

CAS No	%[weight]	Name
147-14-8	100	C. I. Pigment Blue 15:1

Mixtures

See section above for composition of Substances

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with water. ▶ If irritation continues, seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

for copper intoxication:

- ▶ Unless extensive vomiting has occurred empty the stomach by lavage with water, milk, sodium bicarbonate solution or a 0.1% solution of potassium ferrocyanide (the resulting copper ferrocyanide is insoluble).
- ▶ Administer egg white and other demulcents.
- ▶ Maintain electrolyte and fluid balances.
- ▶ Morphine or meperidine (Demerol) may be necessary for control of pain.
- ▶ If symptoms persist or intensify (especially circulatory collapse or cerebral disturbances, try BAL intramuscularly or penicillamine in accordance with the supplier's recommendations.

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- ▶ Treat shock vigorously with blood transfusions and perhaps vasopressor amines.
- ▶ If intravascular haemolysis becomes evident protect the kidneys by maintaining a diuresis with mannitol and perhaps by alkalising the urine with sodium bicarbonate.
- ▶ It is unlikely that methylene blue would be effective against the occasional methaemoglobinemia and it might exacerbate the subsequent haemolytic episode.
- ▶ Institute measures for impending renal and hepatic failure.

[GOSSELIN, SMITH & HODGE: Commercial Toxicology of Commercial Products]

- ▶ A role for activated charcoals or emesis is, as yet, unproven.
- ▶ In severe poisoning CaNa2EDTA has been proposed.

[ELLENHORN & BARCELOUX: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES**Extinguishing media**

- ▶ Water mist, extinguishing powder CO2.

Special hazards arising from the substrate or mixture**Fire Incompatibility**

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Advice for firefighters**Fire Fighting**

- ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
- ▶ Prevent spillage from entering drains or water courses.

Fire/Explosion Hazard

- ▶ Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
- ▶ After combustion likely chances of gases like oxides of carbon and nitrogen may emit noxious and toxic fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Minor Spills**

- ▶ Clean up all spills immediately.
- ▶ Avoid contact with skin and eyes.
- ▶ Wear impervious gloves and safety glasses.
- ▶ Use dry clean up procedures and avoid generating dust.

Major Spills

- ▶ Control personal contact with the substance, by using protective equipment and dust respirator. Prevent spillage from entering drains, sewers or water courses.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 HANDLING AND STORAGE**Precautions for safe handling****Safe handling**

- ▶ Prevent formation of dust. Use in a well-ventilated area.
- ▶ Take precautionary measures against electrostatic charges – earthing is necessary during loading operation. Avoid exposure to open flame or spark.
- ▶ Wear protective clothing when risk of exposure occurs.
- ▶ Avoid contact with incompatible materials.

Other information

- ▶ Store in original containers.
- ▶ Keep containers securely sealed.
- ▶ Store in a cool, dry area protected from environmental extremes.

Conditions for safe storage, including any incompatibilities

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Suitable container	<ul style="list-style-type: none"> ▸ Packing as recommended by manufacturer.
Storage Incompatibility	<ul style="list-style-type: none"> ▸ Avoid exposure to flame or spark. Prevent formation of dust. Use in a well-ventilated area

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	C. I. Pigment Blue 15:1	Copper - Fume / Copper	0.1 mg/m3 / 1 mg/m3	Not Available	Not Available	(as Cu) / (as Cu);Dusts and mists

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
SUDAFAST™ BLUE 2764	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
C. I. Pigment Blue 15:1	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Where suitable engineering controls are not fitted or are inadequate, wear suitable personal protective equipment.
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▸ Safety glasses with side shields ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	Wear suitable glove nitrile rubber
Body protection	<ul style="list-style-type: none"> ▸ See Other protection below
Other protection	<ul style="list-style-type: none"> ▸ No special equipment needed when handling small quantities.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

Forsberg Clothing Performance Index.

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:
SUDAFAST™ BLUE 2764 Not Available

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator

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up to 10 x ES	P1 Air-line*	-	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulphur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Blue Powder		
Physical state	Powder	Relative density (Water = 1)	1.58 ± 0.1
Odour	Odourless	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	5 - 8	Decomposition temperature	Not Available
Melting point / freezing point (°C)	480°C	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Applicable	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution(1%)	Not Available
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ Stable under normal conditions ▶
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Continued...

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Information on toxicological effects

Inhaled	<p>The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.</p> <p>Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.</p> <p>If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.</p>
Ingestion	<p>The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).</p>
Skin Contact	<p>The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.</p>
Eye	<p>Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.</p>
Chronic	<p>Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.</p> <p>Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.</p>

SUDAFAST™ BLUE 2764	TOXICITY	IRRITATION
	Not Available	Not Available
C. I. Pigment Blue 15:1	TOXICITY	IRRITATION
	Oral (rat) LD50: >5,000 mg/kg	[Manuf. C.G.]
		[Manufacturer]
		Eye (human): non-irritant
		Eyes (rabbit) (-) Non-irritant
		Skin (human): non-irritant
	Skin (rabbit) (-) Non-irritant	
	Not Available	Not Available

Acute Toxicity	☉	Carcinogenicity	☉
Skin Irritation/Corrosion	☉	Reproductivity	☉
Serious Eye Damage/Irritation	☉	STOT - Single Exposure	☉
Respiratory or Skin sensitisation	☉	STOT - Repeated Exposure	☉
Mutagenicity	☉	Aspiration Hazard	☉

Legend: ✓ – Data required to make classification available
 ✗ – Data available but does not fill the criteria for classification
 ☉ – Data Not Available to make classification

CMR STATUS

Continued...

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RESPIRATORY	C. I. Pigment Blue 15:1	US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELS) - Respiratory	X
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SECTION 12 ECOLOGICAL INFORMATION**Toxicity**

Copper is unlikely to accumulate in the atmosphere due to a short residence time for airborne copper aerosols. Airborne coppers, however, may be transported over large distances. Copper accumulates significantly in the food chain.

Drinking Water Standards:

3000 ug/l (UK max)

2000 ug/l (WHO provisional Guideline)

1000 ug/l (WHO level where individuals complain)

Soil Guidelines: Dutch Criteria

36 mg/kg (target)

190 mg/kg (intervention)

Air Quality Standards: no data available.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
C. I. Pigment Blue 15:1	low	low

Bioaccumulative potential

Ingredient	Bioaccumulation
C. I. Pigment Blue 15:1	low (BCF = 11)

Mobility in soil

Ingredient	Mobility
C. I. Pigment Blue 15:1	low (KOC = 10000000000)

SECTION 13 DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product / Packaging disposal	Waste disposal should be carried out according to local, state or national legislation.
	<ul style="list-style-type: none"> ▶ ▶ ▶

SECTION 14 TRANSPORT INFORMATION**Labels Required**

Marine Pollutant	NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Custom Tariff No./H.S.Code : 3204.17.6010

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	C. I. Pigment Blue 15:1	X

SECTION 15 REGULATORY INFORMATION

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

C. I. Pigment Blue 15:1 (147-14-8) is found on the following regulatory lists	'US - California Permissible Exposure Limits for Chemical Contaminants','US - Idaho - Limits for Air Contaminants','US - Hawaii Air Contaminant Limits','US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants','US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)','US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values','US - Minnesota Permissible Exposure Limits (PELs)','US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants','US OSHA Permissible Exposure Levels (PELs) - Table Z1','US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory' DSL -Canada Domestic Substance List (DSL)
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SECTION 16 OTHER INFORMATION**Other information**

The information and recommendation in this safety data sheet are correct to the best of our knowledge, information and belief, at the date of publication. The information is given as guidance for the safe handling, use, storage, transportation and disposal of this product and is not considered to be a warranty, express or implied. In all cases it is the responsibility of users to determine the applicability of such information or suitability of any products for their own particular purpose.