

SAFETY DATA SHEET (SDS)


Indigo Dye - Pg 1

Revision Date: 08/12/2020

SECTION 1 - CHEMICAL, PRODUCT & COMPANY INFORMATION

Product Name:	INDIGO DYE	
Product Number/Code:	JAC1698, JAC2698, JAC3698	
Recommended Use:	Dye for fabric	
Synonym(s):	Indigo blue, Indigotin	
Restrictions on use:	None known	
Emergency Number:	ChemTel, Inc. - Contract #MIS9128344	
	North America: 1-800-255-3924	International: 1-813-248-0585

SECTION 2 - HAZARD(S) IDENTIFICATION

This product is not considered to be or contain hazardous chemicals based on evaluations made by our company under the OSHA Hazard Communication Standard, reference 29 CFR 1910.1200.		
Toxicological Data on Ingredients:		
Hazard Classification	Not hazardous	
Physical Hazards:	Not classified	
Health Hazards:	Specific Target Organ Toxicity (repeated exposure)	Category 2
Environmental Hazards:	Not classified	
Label Elements		
Pictogram:		
Signal Words:	Warning	
Hazard Statements-EU:	H373 May cause damage to organs through prolonged or repeated exposure.	
Precautionary Statements-EU:		
Prevention:	P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.	
Response:	P314 Get medical advice/ attention if you feel unwell.	
Storage:	See section 7	
Disposal:	P501 Dispose of contents/ container to an approved waste disposal plant.	
Hazard(s) not otherwise classified:	None known	

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical identity	Content in percent (%)*	CAS #	EC #
Indigo (Synonyms: Indigo blue, Indigotin)	90-100%	482-89-3	207-586-9

SECTION 4 - FIRST AID MEASURES

Description of first aid measures:	
General advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
In the event of skin contact:	Wash off with soap and plenty of water. Consult a physician.
In the event of eye contact:	Flush eyes with water as a precaution.
In the event of swallowing:	Consult a physician.
In the event of exposure by inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Most important symptoms and effects, acute and delayed:	The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.
Indication of any immediate medical attention and special treatment needed:	No data available

SECTION 5 - FIREFIGHTING MEASURES

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture:	Carbon oxides, nitrogen oxides (NO _x)
Advice for fire fighters:	Wear self contained breathing apparatus for fire fighting if necessary.
Further information:	No data available

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
Methods and material for containment and clean up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Environmental procedures:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Reference to other sections:	For disposal see section 13.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.
Conditions for safe storage including any incompatibilities:	Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.
Specific end use(s):	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:	
Occupational exposure limits:	Contains no substances with occupational exposure limit values.
Appropriate engineering controls:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Individual protection measures, such as personal protective equipment:	
Eye/face protection:	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Hand protection:	<p>Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.</p> <p>Full contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)</p> <p>Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)</p> <p><i>Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN 374</i></p> <p>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.</p>
Body protection:	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Environmental exposure controls:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Respiratory protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

General information:	
Appearance and physical state:	Flakes/powder
Color:	Dark Violet
Type of Odor:	Odorless
Odor threshold:	No data available
Important health, safety and environmental information:	
Initial Boiling Point and Boiling Range:	No data available
Melting Point/Freezing Point:	> 300°C (> 572°F) - lit.
Flammability Classification:	No data available
Flash Point:	> 220°C (> 428°F)
Auto-ignition Temperature:	> 300°C (> 572°F)
Decomposition Temperature:	No data available
Flammability Limits (lower/upper):	No data available
Evaporation rate:	No data available
Vapor Pressure:	No data available
Vapor Density (Air=1):	No data available
Octanol/Water Partition Coefficient (log Pow):	log Pow: 2.7 at 23°C (73°F)
Specific Gravity:	No data available
Bulk Density:	No data available
Water Solubility:	Partially soluble
pH:	No data available
Viscosity:	No data available
Explosive Properties:	No data available
Oxidizing Properties:	No data available
Molecular Formula:	$C_{16}H_{10}N_2O_2$
Molecular Weight:	262.26 g/mol
Relative Density:	1.35 g/cm ₃ at 20°C (68°F)

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	No data available
Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Other decomposition products: no data available In event of fire: see section 5

SECTION II - TOXICOLOGICAL INFORMATION

Information on toxicological effects:	
Acute toxicity (list all possible routes of exposure)	
Acute Oral Toxicity:	No data available
Acute Dermal Toxicity:	No data available
Acute Inhalation Toxicity:	No data available
Skin Corrosion/Irritation:	Skin (rabbit) - result: no skin irritation
Serious Eye Damage / Eye Irritation:	N/A
Respiratory or Skin Sensitization:	No data available
Germ Cell Mutagenicity:	Chromosome aberration test in vitro Fibroblast - result: negative Mouse (male) - result: negative
Carcinogenicity (IARC, ACGIH, NTP, OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA.
Reproductive Toxicity:	No data available
Specific Target Organ Toxicity - single exposure (STOT-se):	No data available
Specific Target Organ Toxicity - repeated exposure (STOT-re):	No data available
Aspiration Hazard:	No data available
Potential Health Effects:	
Skin Contact:	No data available
Eye Contact:	No data available
Ingestion:	No data available
Inhalation:	No data available
Chronic Health Effects:	No data available
Additional Data:	RTECS: DU2988400 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



SECTION 12 - ECOLOGICAL INFORMATION

Toxicity:	
Acute/prolonged toxicity to fish:	Static test LC50 - Leuciscus idus (Golden orfe) - > 10,000 mg/l - 96 h
Acute/prolonged toxicity to aquatic invertebrates:	Static test EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h
Acute/prolonged toxicity to aquatic plants:	Static test EC50 - Desmodismus subspicatus (green algae) - > 100 mg/l - 72 h
Persistence and degradability:	Biodegradability Aerobic - Exposure time 28 d Result: 0 % - Not readily biodegradable. (OECD Test Guideline 301C)
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Results of PBT and vPvB assessment (EC reg. 453/2010):	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects:	No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods:	
Disposal:	Dispose of in accordance with local regulations.
Container Disposal:	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

General Information:	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).
UN number:	Not relevant
UN proper shipping name:	Not relevant
Transport hazard class:	Not relevant
Packing group:	Not relevant
Environmental Hazards:	
Environmentally hazardous substance:	No
Special precautions for user:	Not relevant

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:	
Hazard categories	
SARA 302 Components:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:	This material does NOT contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards:	No SARA Hazards
Massachusetts Right to Know Components:	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components:	Indigo: (CAS# 482-89-3)
New Jersey Right to Know Components:	Indigo: (CAS# 482-89-3)
California Prop. 65 Components:	This product does NOT contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

SECTION 16 - OTHER INFORMATION

HMIS Hazard ID:	
Health:	0
Flammability:	0
Reactivity:	0
NFPA Rating:	
Health Hazard:	0
Fire Hazard:	0
Reactivity Hazard:	0
Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect	

Disclaimer:

The information contained in this SDS is based on data from sources considered to be reliable but Dharma Trading Co. does not guarantee the accuracy or completeness thereof. Dharma Trading Co. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology or fire and understand the data in this SDS.

Revision Date: 08/12/2020

National Chemical Inventories:	
All components of this product are listed on the following chemical substance inventories: TSCA (USA)	
DSL	(Canada)
EINECS	(Europe)
ENCS	(Japan) ECL
	(Korea)
AICS	(Australia) NZIoC
	(New Zealand)
PICCS	(Philippines)
IECSC	(China)

Abbreviations:	
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	International carriage of Dangerous goods by Road
AICS	Australian Inventory of Chemical Substances
ATE	Acute Toxicity Estimate
BfR	Bundesinstitut für Risikobewertung recommendations for food contact materials
BCF	Bioconcentration Factor
BOD5	5-day Biochemical Oxygen Demand
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CLP	Classification, Labeling and Packaging regulation
COD	Chemical Oxygen Demand DOT Department of Transportation DSL Domestic Substances List
EINECS	European Inventory of Existing Chemical Substances
ECL	Existing Chemicals List (Korea)
ENCS	Existing and New Chemical Substances Inventory (Japan)
EN 689	Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy.
ERG	Emergency Response Guide
GHS	Globally Harmonized System
HMIS	Hazardous Materials Information System IARC International Agency for Research on Cancer IATA International Air Transport Association
ICAO	International Civil Aviation Organization IDLH Immediately Dangerous to Life and Health IMDG International Maritime Dangerous Goods
LD50	Lethal Dose to 50% of test animal population
MAK	Maximale Arbeitsplatz Konzentration
NTP	National Toxicology Program
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent, Bioaccumulative and Toxic vPvB Very Persistent and Very Bioaccumulative PEL Permissible exposure limit
PICCS	Philippine Inventory of Commercial Chemical Substances
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemical Substances
RID	International carriage of dangerous goods by Rail SARA Superfund Amendments and Reauthorization Act STEL Short Term Exposure Limit
SVHC	Substance of Very High Concern
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VOC	Volatile Organic Compound
WGK	Wassergefährdungsklasse (Water Hazard Class) WHMIS Workplace Hazardous Material Identification System