



514, 6th Floor, Adamji Bldg., 413, Narshi Natha Street, Mumbai - 400 009. (INDIA).

Tel. : 0091-22-2343 9093 | Fax : 0091-22-6634 9992 | E-mail : info@hajexports.com | Web : www.hajexports.com

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTITY AND COMPANY IDENTIFICATION

PRODUCT NAME	POLYVINYL BUTYRAL RESIN HAJ - B 20
CHEMICAL CLASS	RESINS
MAJOR INDUSTRY SUITABILITY	INKS
MANUFACTURER:	EMERGENCY TELEPHONE NUMBERS:
Haj Exports 6 TH FLOOR, 514 ADAMJI BLDG., 413 NARSI NATHA STREET, MUMBAI – 400 009. INDIA.	TEL: 91-22-23439093 FAX: 91-22-66349992

2. CHEMICAL COMPOSITION AND COMPONENTS

CHEMICAL NAME

POLYVINYL BUTYRAL RESIN

HAZARDOUS INGREDIENTS

THIS PRODUCT IS NOT CONSIDERED TO BE A HAZARDOUS SUBSTANCE AS DEFINED UNDER OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

THIS PRODUCT IS A NON-VOLATILE SOLID AND PRACTICALLY INSOLUBLE IN WATER. NOT CONSIDERED TO BE FLAMMABLE OR EXPLOSIVE. HOWEVER, DUSTY CONDITIONS INCREASE THE RISK OF A DUST EXPLOSION HAZARD. WHEN INVOLVED IN A FIRE OR EXPOSED TO HIGH TEMPERATURE FOR AN EXTENDED PERIOD OF TIME, IT MAY BURN EVOLVING NOXIOUS FUMES, WHICH MAY INCLUDE OXIDES OF CARBON AND NITROGEN, HYDROGEN CHLORIDE AS WELL AS OTHER TOXIC GASES AND VAPOURS.

COMPOUNDS SIMILAR TO POLYVINYL BUTYRAL RESIN TYPE HAVE A LOW ORDER OF TOXICITY, GREATER THAN 5,000 MG/KG IN ACUTE ORAL TOXICITY STUDIES IN RATS (LD50). THEY ARE NEITHER IRRITATING TO THE EYES NOR TO THE SKIN.

4. FIRST AID MEASURES

IF INHALED

REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT OR STOPS, GIVE ARTIFICIAL RESPIRATION.

ON SKIN CONTACT (OR ABSORPTION)

WASH WITH SOAP AND WATER.

ON CONTACT WITH EYES

WASH AFFECTED EYES FOR AT LEAST 15 MINUTES UNDER RUNNING WATER.

ON INGESTION

DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. DO NOT INDUCE VOMITING.

IN ALL CASES, MEDICAL ATTENTION IS RECOMMENDED.



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5. FIRE FIGHTING MEASURES

NONFLAMMABLE ORGANIC PIGMENT PRODUCT.

SUITABLE EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL OR FOAM RECOMMENDED. APPLY WATER SPRAY TO COOL EXPOSED CLOSED CONTAINERS.

FIRE FIGHTING EQUIPMENT

USE SELF-CONTAINED BREATHING APPARATUS.

FIRE AND EXPLOSION HAZARDS

FIRE OR EXCESSIVE HEAT MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS. UNDER CONDITIONS OF EXCESSIVE AND PROLONGED HEATING AT TEMPERATURES ABOVE 200°C, THIS PRODUCT MAY HAVE THE POTENTIAL OF "SELF-COMBUSTION".

GENERAL HAZARD

IMPROPER HANDLING OF ANY FINELY DIVIDED ORGANIC PIGMENT POWDER MAY ENTAIL DUST CLOUD FORMATION WITH CONSEQUENT EXPLOSION HAZARD.

FLAMMABILITY DATA:

FLASH POINT

NONFLAMMABLE MATERIAL.

FLAMMABILITY LIMITS IN AIR-LOWER AND AIR-HIGHER

NOT KNOWN.

AUTOIGNITION TEMPERATURE

NOT KNOWN.

<u>RATINGS</u>	<u>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)</u>	<u>HAZARDOUS MATERIAL IDENTIFICATION SYSTEM HMIS)</u>
HEALTH	1	1
FLAMMABILITY	1	1
REACTIVITY	0	0

(1 = SLIGHT; 0 = MINIMAL)

6. ACCIDENTAL RELEASE MEASURES

SPILLAGE

DAMPEN THE MATERIAL WITHOUT CREATING A DUST. SWEEP OR VACUUM AND PLACE IN SUITABLE CONTAINERS FOR DISPOSAL. AIR BORNE ORGANIC PIGMENT DUST MAY BE AN EXPLOSION HAZARD. SECURE POSSIBLE SOURCES OF IGNITION AND AVOID DUSTING.



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7. HANDLING AND STORAGE

HANDLING

HANDLE WITH CARE AND AVOID EMPLOYEE EXPOSURE WITH APPROPRIATE CONTROL MEASURES AND GOOD INDUSTRIAL HYGIENE PRACTICES. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING.

STORAGE

KEEP CONTAINERS TIGHTLY CLOSED IN A DRY, COOL AND WELL-VENTILATED PLACE AWAY FROM DIRECT SOURCES OF HEAT. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUES AND SHOULD BE HANDLED APPROPRIATELY. POSITION CONTAINERS SO THAT ANY LABELING INFORMATION IS VISIBLE.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS

THE USE OF LOCAL EXHAUST VENTILATION IS RECOMMENDED. TAKE APPROPRIATE PRECAUTIONS INCLUDING A PROPERLY GROUNDED DUST COLLECTION SYSTEM.

PERSONAL PROTECTION

USE PROTECTIVE GLOVES AS A STANDARD INDUSTRIAL HANDLING PROCEDURE. WEAR IMPERVIOUS CLOTHING WHEN GROSS CONTACT IS LIKELY.

RESPIRATORY PROTECTION

WEAR NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) APPROVED DUST RESPIRATOR FOR POTENTIALLY DUSTY HANDLING OPERATIONS.

EYE PROTECTION

USE SAFETY GLASSES OR GOGGLES TO PROTECT AGAINST DUST PARTICLES.

EXPOSURE LIMITS

OSHA PEL'S AND AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) TLV'S ARE NOT ESTABLISHED. THE RECOMMENDED PERMISSIBLE EXPOSURE LIMIT (PEL) FOR NUISANCE DUST IS 15 mg/m^3 (TOTAL DUST) AND 5 mg/m^3 (RESPIRABLE DUST, 29 CFR 1910.1000). THE RECOMMENDED THRESHOLD LIMIT VALUE (TLV) FOR NUISANCE DUST IS 10 mg/m^3 .



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9. PHYSICAL AND CHEMICAL PROPERTIES

PROPERTIES: HAJ- B 20 POLY VINYL BUTYRAL RESIN (PVB RESIN)

SR. No.	TEST	RESULTS
1.	APPEARANCE	WHITE FLUFFY POWDER
2.	VISCOSITY IN SEC. @ 30°C (20% ETHANOL IN B4 FORD CUP).	100 - 120
3.	VOLATILE CONTENT (% W/W MAX.)	2
4.	ACID VALUE (MG KOH/GM)	1.0 MAX.
3.	VOLATILE CONTENT (% W/W MAX.)	2
4.	ACID VALUE (MG KOH/GM)	1.0 MAX.

10. STABILITY AND REACTIVITY

GENERAL

THIS PRODUCT IS A STABLE COMPOUND. SHELF LIFE IS UNLIMITED (IF PROPERLY STORED).

HAZARDOUS POLYMERIZATION

WILL NOT OCCUR.

INCOMPATIBILITY

NOTHING IN PARTICULAR. AVOID STRONG OXIDIZING AGENTS LIKE PEROXIDES, CHLORATES, PERCHLORATES, NITRATES AND PERMANGANATES.

DECOMPOSITION TEMPERATURE

NOT KNOWN.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

NONE, PROVIDED PRODUCT IS CORRECTLY PROCESSED. HOWEVER, BURNING MAY EVOLVE OXIDES OF CARBON AND NITROGEN AND HYDROGEN CHLORIDE AS WELL AS OTHER NOXIOUS GASES, WHICH ARE TOXIC AND MUST BE REMOVED FROM THE FLUE GAS BY APPROPRIATE MEANS.

11. TOXICOLOGICAL INFORMATION

GENERAL

ORGANIC PIGMENTS ARE CONSIDERED AS PRACTICALLY NON-TOXIC DUE TO THE FACT THAT THEY ARE HIGHLY INERT AND INSOLUBLE SUBSTANCES, WITH A NEAR ABSENCE OF PHYSICAL HAZARDS UNDER NORMAL STANDARDS OF GOOD INDUSTRIAL HYGIENE.

ACUTE TOXICITY LD50/ORAL/RATS

Y 5000 MG/KG (NON-TOXIC AS DEFINED BY FHSA 16 CFR 1500.3, NOT HAZARDOUS AS DEFINED BY OSHA 29 CFR 1916.25)

CARCINOGENICITY



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THIS PRODUCT DOES NOT CONTAIN INGREDIENTS LISTED AS CARCINOGENS BY NATIONAL TOXICOLOGY PROGRAM (NTP), INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) OR OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

MUTAGENICITY

IN VITRO SCREENING TESTS FOR MUTAGENICITY HAD REPORTED NEGATIVE RESULTS. VERY FEW PIGMENTS HAVE BEEN REPORTED TO BE MUTAGENIC.

TERATOGENICITY

NOT KNOWN.

12. ECOLOGICAL INFORMATION

BEHAVIOUR AND ENVIRONMENTAL FATE

BEING CHEMICALLY INERT AND PRACTICALLY INSOLUBLE IN WATER, ORGANIC PIGMENTS ARE NOT ENVIRONMENTALLY HAZARDOUS. THEY MAY BE VIRTUALLY REMOVED FROM WASTEWATER MECHANICALLY IN SUITABLE EFFLUENT TREATMENT PLANTS.

TOXICITY TO FISH LC50

DUE TO THEIR NEGLIGIBLE SOLUBILITY, ORGANIC PIGMENTS ARE NONTOXIC TO FISH, AT LEAST THERE IS NO EVIDENCE TO THE CONTRARY.

BIOLOGICAL DEGRADATION

THEY HAVE MINIMAL BIOACCUMULATION AND BIOAVAILABILITY CHARACTERISTICS. THEREFORE, THEY ARE NEITHER BIODEGRADABLE NOR RETAINED IN SOIL OR WATER.

INHIBITION OF WASTEWATER (BACTERIA)

NOT KNOWN.

13. DISPOSAL CONSIDERATIONS

GENERAL

DISPOSE (DUMP OR INCINERATE) IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.

WASTE MANAGEMENT

CONTACT THE STATE OR LOCAL ENVIRONMENTAL AGENCY FOR SPECIFIC RULES.

THIS PRODUCT IS NOT IDENTIFIED AS A RCRA HAZARDOUS WASTE (40 CFR 261.24) AND IS NOT REGULATED UNDER CERCLA (SUPERFUND).

14. TRANSPORT INFORMATION

CLASSIFICATION OF DANGEROUS GOODS

THIS PRODUCT IS NOT CLASSIFIED AS DANGEROUS UNDER THE RELEVANT EU DIRECTIVES AND DEPARTMENT OF TRANSPORT (DOT) REGULATIONS. THUS, IT IS NOT HAZARDOUS UNDER TRANSPORT REGULATIONS.



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SHIPPING NAME (49 CFR 172.101-102) :	NOT REGULATED
HAZARD CLASS (49 CFR 172.101-102) :	NONE
LABEL :	NONE
PLACARD :	NONE
BILL OF LADING DESCRIPTION :	PIGMENTS NOI DRY
CERCLA SUBSTANCE (49 CFR) :	NOT REGULATED

INTERNATIONAL

IMDG/IACO CLASSIFICATION :	NOT REGULATED
UN/NA NUMBER :	NOT REGULATED
IATA CLASSIFICATION :	NOT REGULATED

15. REGULATORY INFORMATION

15.1. U.S. FEDERAL REGULATIONS

TSCA INVENTORY STATUS AND TSCA INFORMATION:

THIS MATERIAL OR ITS COMPONENTS ARE LISTED ON OR ARE IN COMPLIANCE WITH THE REQUIREMENTS OF THE TSCA CHEMICAL SUBSTANCE INVENTORY.

TSCA 12(b) EXPORT NOTIFICATION:

THIS MATERIAL DOES NOT CONTAIN ANY TSCA 12(b) REGULATED CHEMICALS.

CERCLA REGULATED CHEMICALS:

THIS MATERIAL DOES NOT CONTAIN ANY CERCLA REGULATED CHEMICALS.

SARA 302 EHS CHEMICALS:

THIS MATERIAL DOES NOT CONTAIN ANY SARA EXTREMELY HAZARDOUS SUBSTANCES.

SARA 311/312 HAZARD CLASS:

THIS PRODUCT DOES NOT PRESENT ANY SARA 311/312 HAZARDS.

SARA 313 CHEMICALS:

THIS MATERIAL DOES NOT CONTAIN ANY SARA 313 CHEMICALS ABOVE DE MINIMUS LEVELS.

HAPS (HAZARDOUS AIR POLLUTANTS):

THIS MATERIAL DOES NOT CONTAIN ANY HAZARDOUS AIR POLLUTANTS.

15.2. U.S. STATE REGULATIONS

CALIFORNIA PROPOSITION 65 CARCINOGENS:

THIS MATERIAL DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS:

THIS MATERIAL DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE EFFECTS.

MASSACHUSETTS SUBSTANCE LIST:

THIS MATERIAL CONTAINS NO LISTED COMPONENTS.

NEW JERSEY RIGHT-TO-KNOW HAZARDOUS SUBSTANCE LIST:

THIS MATERIAL CONTAINS NO LISTED COMPONENTS.

PENNSYLVANIA RIGHT-TO-KNOW HAZARDOUS SUBSTANCE LIST:

THIS MATERIAL CONTAINS NO LISTED COMPONENTS.



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15.3. CANADIAN REGULATIONS

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

WHMIS HAZARD CLASSES:

NONE.

DSL STATUS:

THIS MATERIAL OR ITS COMPONENTS ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST.

NON-DSL CHEMICALS:

THIS MATERIAL DOES NOT CONTAIN ANY NON-DSL CHEMICALS.

CANADIAN INGREDIENT DISCLOSURE LIST:

THIS MATERIAL CONTAINS NO LISTED COMPONENTS.

15.4. OTHER INTERNATIONAL REGULATIONS

EU RISK PHRASES:

R-PHRASE DESCRIPTION

R - -

EU SAFETY PHRASES:

S-PHRASE DESCRIPTION

S - -

DETAILS OF INTERNATIONAL REGISTRATION STATUS

LISTED ON OR IN ACCORDANCE WITH THE FOLLOWING INVENTORIES:

TSCA - USA

PICCS - PHILIPPINES

ENCS - JAPAN

EINECS - EUROPE

ECL - KOREA

DSL - CANADA

AICS - AUSTRALIA

IECSC - CHINA

HSNO - NEW ZEALAND

16. OTHER INFORMATION

FOR ANY FURTHER INFORMATION, PLEASE CONTACT:

ADDRESS:

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