MATERIAL SAFETY DATA SHEET

Doctor Best Insulating Varnish

PLAZA CHEMICAL INDUSTRIES
www.plazachemicals.com

1. Product and Company identification

Trade Name	Doctor Best Insulating Varnish
Chemical Name	Doctor Best Insulating Varnish
ITC (HS) Code	3208
CAS No.	—
Company name and address	PLAZA Chemical Industries 82, Bye pass road | Opp. Heera Talkies | New Agra | Agra | 282005 | UP | India. (+91) 9634046611, (+91) 9319102461 plazachemicals@gmail.com, www.plazachemicals.com

2. Composition / information on ingredients

Product description / chemical characterization
Description : Impregnating Varnish
Hazardous ingredients

CAS No.	**Chemical name classification (Wt %)**
1330-20-7	xylene, mixture of isomers (25-50)

3. Hazards Identification

Classification of the substance or mixture
This mixture is classified as hazardous according to 1999/45/EC.

R10	Flammable
N; R51-53	Dangerous for the environment Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

2.2. **Label elements**
Labelling (67/548/EEC or 1999/45/EC)

Xn	Harmful
N	Dangerous for the environment

Hazard statements

10	Flammable
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Precautionary statements

51	Use only in well-ventilated areas.
61	Avoid release to the environment. Refer to special instructions/safety data sheet.

4. First-Aid Measures

4.1. Description of first aid measures
General information
In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.
After inhalation
Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.
Following skin contact
Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.
After eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.
After ingestion
If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do not induce vomiting.

5. Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)
Extinguishing media which must not be used for safety reasons:
strong water jet
5.2. Special hazards arising from the substance or mixture
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.
5.3. Advice for firefighters
Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

6.Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.
6.2. Environmental precautions
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.
6.3. Methods and material for containment and cleaning up
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.
6.4. Reference to other sections
Observe protective provisions (see chapter 7 and 8).

7. Handling and storage

7.1. Precautions for safe handling
Advices on safe handling
Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.
Precautions against fire and explosion:
Vapours are heavier than air. Vapours form explosive mixtures with air.
7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".
Hints on joint storage
Keep away from strongly acidic and alkaline materials as well as oxidizers.
Further information on storage conditions
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 40 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.
7.3. Specific end use(s)
Observe technical data sheet. Observe instructions for use.

8. Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

xylene, mixture of isomers (CAS No. 1330-20-7)
BMGV, TWA: 650 mmol
Remark: (methyl hippuric acid/mol creatinine in urine, Post shift)
WEL, TWA: 220 mg/m3; 50 ppm
WEL, STEL: 441 mg/m3; 100 ppm
Remark: (Sk)

Additional information

TWA : long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Dand protection

For prolonged or repeated handling the following glove material must be used: gloves made from nitril-/neoprenrubber. Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374. Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

9.Physical and chemical properties

9.1 **Information on basic physical and chemical properties**

Appearance:	Physical state liquid
Colour:	brown
Odour:	typical

Safety relevant basis data	**Unit**
Flash point	38 °C
Ignition temperature in °C	232 °C
Vapour pressure at 20 °C	0,30 mbar
Density at 23 °C	0,89 g/cm³
Water solubility (g/L)	not soluble
Solid content (%)	47,00 Wt %
solvent content	Organic solvents: 53 Wt %

10. Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid
Hazardous decomposition byproducts may form with exposure to high temperatures.
10.5. Incompatible materials
10.6. Hazardous decomposition products
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides

11.Toxicological information

No data on preparation itself available.
11.1. Information on toxicological effects
Acute toxicity : Toxicological data are not available.
Irritant and corrosive effects : Toxicological data are not available.
Sensitisation : Toxicological data are not available.
Specific target organ toxicity : Toxicological data are not available.
Aspiration hazard : Toxicological data are not available.
Practical experience/human evidence
Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.
Overall Assessment on CMR properties
The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2. according to 67/548/EEC. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers.See chapters 2 and 15 for details.

12. Ecological information

Overall evaluation
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.
12.1. Toxicity : Toxicological data are not available.
12.2. Persistence and degradability : Toxicological data are not available.
12.3. Bioaccumulative potential : Toxicological data are not available.
12.4. Mobility in soil : Toxicological data are not available.
12.5. Results of PBT assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
12.6. Other adverse effects
The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 2 and 15 for details.

13. Disposal considerations

13.1. Waste treatment methods
Appropriate disposal / Product Recommendation
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.
List of proposed waste codes/waste designations in accordance with EWC
080111 waste paint and varnish containing organic solvents or other dangerous substances
Packaging Recommendation
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

14. Transport information

14.1. **UN number :** 1263
14.2. **UN proper shipping name**
Land transport (ADR/RID): Paint; Sea transport (IMDG): PAINT; Air transport (ICAO-TI / IATA-DGR): Paint

14.3. **Transport hazard class(es)** 3
14.4. **Packing group** III
14.5. **Environmental hazards**
Land transport (ADR/RID)
Marine pollutant p
14.6. **Special precautions for user**
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8
Additional information
Land transport (ADR/RID)
tunnel restriction code D/E
Sea transport (IMDG)
EmS-No. F-E, S-E
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

15.Regulatory information

15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**
EU legislation
Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).
VOC-value (in g/L) ISO 11890-2: 535,801
VOC-value (in g/L) ASTM D 2369: 535,801
National regulations
Restrictions of occupation
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the ''juvenile work protection guideline'' (94/33/EC).
Other regulations, restrictions and prohibition regulations
15.2. **Chemical Safety Assessment**
Chemical safety assessments for substances in this preparation were not carried out.

16. Other information

Wording of the R-phrases under paragraph 3:

R10		Flammable
Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
Xi; R38	Irritant	Irritating to skin.
N; R51-53	Dangerous for the environment	Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.
Xn; R65	Harmful	Harmful: may cause lung damage if swallowed.

Additional information
The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and
regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.