

## Material Safety Data Sheet BRAHMANOL

### SECTION 1.1 – PRODUCT IDENTIFICATION

**Product Name** : BRAHMANOL  
**Molecular Formula** : C<sub>13</sub>H<sub>24</sub>O  
**Molecular Weight** : 196.33 g/mole  
**CAS No.** : 72089-08-8

### SECTION: 1.2 COMPANY IDENTIFICATION

**Company Name:** Indenta Chemicals (India) Pvt. Ltd.

**Address:** 117, The Summit Business Bay, Opp Cinemax, Off. Sir M.V. Road, Near WEH Metro Station, Andheri (E), Mumbai 400 093, India

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### SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS #	% by Weight
BRAHMANOL	72089-08-8	100

**Toxicological Data on Ingredients:** No Data Available

### SECTION 3: HAZARD IDENTIFICATION

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, dermal Category 5  
**Environmental hazards** Not classified.  
**Label elements**  
**Hazard symbol** None.  
**Signal word** Warning  
**Hazard statement** May be harmful in contact with skin.  
**Precautionary statement**  
**Prevention** Observe good industrial hygiene practices.  
**Response** Call a POISON CENTER/doctor if you feel unwell.  
**Storage** Store away from incompatible materials.  
**Disposal** Dispose of waste and residues in accordance with local authority requirements.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** 100% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. 100% of the mixture consists of component(s) of unknown acute inhalation toxicity. 100% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

### Indenta Chemicals (India) Pvt. Ltd.

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## SECTION 4: FIRST AID MEASURES

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### 4.1 Description of first-aid measures

#### If inhaled

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

#### In case of skin contact

Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.

#### In case of eye contact

Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.

#### If swallowed

Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

#### Most important symptoms/effects, acute and delayed

Direct contact with eyes may cause temporary irritation.

#### Indication of immediate medical attention and special treatment needed

Not available.

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## SECTION 5: FIRE AND EXPLOSION DATA

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#### Suitable extinguishing media

Water spray, fog, CO<sub>2</sub>, dry chemical, or alcohol resistant foam.

#### Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

#### Specific hazards arising from the chemical

Fire may produce irritating, corrosive and/or toxic gases.

#### Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

#### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.

#### Specific methods

Use water spray to cool unopened containers.

#### General fire hazards

Static charges generated by emptying package in or near flammable vapor may cause flash fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

The product is immiscible with water and will spread on the water surface.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers.

**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 13 of the SDS.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment.

## SECTION 7: HANDLING AND STORAGE

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### Precautions for safe handling

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

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### Occupational exposure limits

This substance has no PEL, TLV, or other recommended exposure limit.

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Use explosion-proof ventilation equipment to stay below exposure limits.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection:** Chemical resistant gloves.

**Other:** Not available.

**Respiratory protection**

Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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**Information on basic physical and chemical properties**

<b>a) Appearance</b>	Form: Liquid Color: colourless to pale yellow
<b>b) Odor</b>	Characteristic.
<b>c) Odor Threshold</b>	No data available
<b>d) pH</b>	No data available
<b>e) Melting point/freezing point</b>	No data available
<b>f) Initial boiling point and boiling range</b>	503.6 - 505.4 °F (262 - 263 °C)
<b>g) Flash point</b>	> 200.0 °F (> 93.3 °C) Closed Cup
<b>h) Evaporation rate</b>	No data available
<b>i) Flammability (solid,gas)</b>	No data available
<b>j) Upper/lower flammability or explosive limits</b>	No data available
<b>k) Vapor pressure</b>	0.002 mm Hg at 25 °C
<b>l) Vapor density</b>	6.8
<b>m) Relative density</b>	No data available
<b>n) Water solubility</b>	Insoluble
<b>o) Partition coefficient: n-octanol/water</b>	No data available
<b>p) Autoignition temperature</b>	No data available
<b>q) Decomposition temperature</b>	No data available
<b>r) Viscosity</b>	No data available
<b>s) Explosive properties</b>	No data available
<b>t) Oxidizing properties</b>	No data available
<b>Other safety information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.94 at D20/4

**SECTION 10: STABILITY AND REACTIVITY****Reactivity**

The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**

Material is stable under normal conditions.

**Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

**Conditions to avoid**

Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

No hazardous decomposition products if stored and handled as indicated.

**SECTION 11: TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

**Inhalation** No adverse effects due to inhalation are expected.

**Skin contact** May be harmful in contact with skin.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

**Information on toxicological effects****Acute toxicity**

May be harmful in contact with skin.

Product	Species Test	Results
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tetramethyl-3-cyclopentene butanol (CAS 72089-08-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 18000 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**

Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity****IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not available.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** - Not classified.

**Specific target organ toxicity - repeated exposure** - Not classified.

**Aspiration hazard** Not an aspiration hazard.

**SECTION 12: ECOLOGICAL INFORMATION**

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**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**Persistence and degradability**

Biodegradability: BODIS

Result: Not readily biodegradable

36%

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**SECTION 13: DISPOSAL CONSIDERATION**

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**Disposal instructions**

Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**

Dispose in accordance with all applicable regulations.

**Hazardous waste code**

Not established.

**Waste from residues / unused products**

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14: TRANSPORT INFORMATION**

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**ADN**

Not regulated as dangerous goods.

**ADR**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

**DOT**

**BULK**

Not regulated as dangerous goods.

**DOT**

**NON-BULK**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**SECTION 15: OTHER REGULATORY INFORMATION**

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**US federal regulations**

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not available.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous** No

**Chemical**

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act** Not regulated.

**(SDWA)**

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes

China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## SECTION 16: ADDITIONAL INFORMATION

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This information is provided for documentation purposes only.

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