

Safety data sheet as per Commission Regulation (EU) 2015/830

Product: Diisobutyl carbinol



◆ SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	Diisobutyl carbinol (DIBC)
Chemical Name	2,6-Dimethyl-4-heptanol
CAS Number	108-82-7
EC Number	203-619-6

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

Relevant identified uses Solvent for lacquers, printing inks and hydrogen peroxide manufacture; extraction solvent; rubber additive

Uses identified against Not for use other than those specified

1.3 Details of the supplier of the safety data sheet:

Manufacturer	Prasol Chemicals Pvt. Ltd., Prasol House, Plot No.A-17/2/3, T.T.C. Indl. Area, Khairne M.I.D.C., Navi Mumbai - 400 710. Maharashtra, India.
Telephone	+91-22-27782555
Telefax	+91-22-27782430
e-mail address	sales@prasolchem.com; inquiry@prasolchem.com

1.4 Emergency telephone number

Telephone	+91-22- 27782555
Language	English

◆ SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Irritation	Category 2	H319	Causes serious eye irritation
Specific Target Organ Toxicity	Category 2	H335	May cause respiratory irritation
Aquatic Chronic	Category 3	H412	Harmful to aquatic life with long lasting effects

Information concerning particular hazards for human and environment: No further information

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms



GHS07

Signal word Warning

Hazard statements	H319	Causes serious eye irritation
	H335	May cause respiratory irritation
	H412	Harmful to aquatic life with long lasting effects

Precautionary statements

General	P103	Read label before use.
Prevention	P261	Avoid breathing fume/gas/mist/ vapours/spray
	P264	Wash hands thoroughly after handling.
	P271	Use only outdoors or in a well -ventilated area
	P273	Avoid release to the environment.
	P280	Use protective gloves and eye protection.
Response	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breath
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P312	Call a doctor if you feel unwell.
	P337+P331	If eye irritation persists: Get medical advice.
Storage	P403+P233	Store in a well-ventilated place. Keep container tightly closed
	P405	Store locked up.
Disposal	P501	Dispose of contents and container in accordance with national regulations

2.3 Other hazards

Not a PBT, vPVB substance according to the criteria of REACH regulation



◆ **SECTION 3: Composition/information on ingredients**

3.1 Substances

Ingredient	CAS No.	EC No.	Concentration (%)
2,6-dimethyl-4-heptanol	108-82-7	203-619-6	70 min
4,6-dimethyl-2-heptanol	51079-52-8	unlisted	30 max

Additional information:

Molecular Formula	C ₉ H ₁₀ O
Molecular Weight	144.26

◆ **SECTION 4: First aid measures**

4.1 Description of first aid measures

General information	Take off all contaminated clothing immediately.
After inhalation	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention
After skin contact	Wash off with plenty of water immediately, seek medical advice if necessary.
After eye contact	Rinse with plenty of water immediately and seek medical advice.
After swallowing	Do not induce vomiting and seek medical advice immediately.
4.2 Most important symptoms and effects, both acute and delayed	General: Burning eyes and skin. Fatigue, nausea, unconsciousness. After eye contact: Irritant.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptomatically and supportively

◆ **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media	CO ₂ , dry powder, foam or water spray
Unsuitable extinguishing media	water jet
5.2 Special hazards arising from the substance or mixture	May form toxic carbon oxides if case of fire. Class 4 Combustible liquid Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.
5.3 Advice for firefighters	Use fine water spray to cool endangered containers. Move undamaged containers from immediate hazard area. Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

◆ **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	Remove persons not involved upwind. Wear a self-contained breathing apparatus and chemical protective clothing. Solvent-resistant protective clothing recommended.
6.2 Environmental precautions	Plug leak if safely possible. Do not allow to enter drains, surface waters, basements or pits. When released into the environment, alert police and fire brigade.
6.3 Methods and material for containment and cleaning up	In case of spills of large quantities: Dam spills and pump to remove. Explosion protection required. Absorb leftover product with non-flammable liquid-binding material (e.g. earth, sand, vermiculite or ground sand stone) and place in closed containers for disposal.
6.4 Reference to other sections	Section 8 for information on personal protection equipment. Section 13 for disposal information

◆ **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	Provide adequate ventilation, and local exhaust as needed. Provide room air exhaust at ground level. Concentrated vapours are heavier than air. Avoid the formation of aerosol. Do not breathe vapours. Use only explosion-protected equipment/instruments. Do not use air pressure.
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7.2 Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion	Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Beware of re-ignition. Potentially explosive mixture may form within partially empty containers. Emergency cooling must be provided for in case of a fire in the vicinity. Do not weld.
Storage	Keep container dry. Keep container tightly closed in a cool, well-ventilated place. Protect from direct sunlight. Steel, stainless steel are stable container materials.
Advice on common storage	Observe prohibition against storing together!
Storage class	4 Combustible liquids
Storage stability	Stable under recommended storage conditions
7.3 Specific end use(s)	Solvent

◆ **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters	Occupational Exposure Limits have not been established
8.2 Exposure controls	
Appropriate engineering controls	Explosion protection required. Provide good ventilation and/or an exhaust system in the work area.
Personal protective equipment	
Eye/ face protection	closed goggles, face shield
Skin protection	
Hand protection	Butyl-rubber 0.5 mm > 480 min
Body protection	Flame-retardant antistatic protective clothing; safety shoes
Respiratory protection	Respiratory equipment with suitable filter or a self-contained respiratory apparatus.
Thermal hazards	Combustible liquid; do not expose to heat
Industrial hygiene	Do not inhale vapours / aerosols. Avoid contact with skin and eyes. Remove immediately all contaminated clothing. Use disposable clothing if appropriate. Smoking, eating and drinking should be prohibited in the application area.

SECTION 9: Physical and chemical properties

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

Appearance	Colourless liquid
Odour	alcohol-like
Odour threshold	no data available
pH	no data available
Melting point	<-65°C
Boiling point	178°C
Flash point	66°C (Closed cup)
Evaporation rate	0.02 (nBuAc=1)
Flammability (solid, gas)	combustible
Flammability limits	Lower 0.8 Vol % Upper 6.1 Vol %
Vapour pressure	0.1 hPa at 20°C
Vapour density	4.97 (air =1)
Relative density	0.811 at 20°C
Solubility in water	0.06% at 20°C
Partition coefficient	no data available
Ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	15.4mPa.s at 20°C
Explosive properties	No explosive properties.
Oxidizing properties	no oxidizing properties
9.2 Other information	
Refractive index	1.423 at 21°C

SECTION 10: Stability and reactivity

◆ 10.1 Reactivity	Vapours form potentially explosive mixtures with air. Heavier than air, they proceed at floor level and may back-flash over great distances when ignited.
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10.2 Chemical stability	May become electrostatically charged.
10.3 Possibility of hazardous reactions	Under storage at normal ambient temperatures (-40°C to +40°C), the product is stable.
10.4 Conditions to avoid	No known hazardous reactions if used as directed
10.5 Incompatible materials	Combustible. Concentrated vapours are heavier than air. Forms explosive mixtures with air, also in empty, uncleaned containers.
10.6 Hazardous decomposition products	Strong acid, strong oxidizing agents Thermal decomposition products- carbon oxides

SECTION 11: Toxicological information

◆ **11.1 Information on toxicological effects**

Acute toxicity

LD50	oral	rat	3560 mg/kg bw	not classified
LC50	Dermal	rabbit	4593mg/kg bw	not classified
LD50	inhalation	no data		

Skin irritation Mild skin irritation 24 h (rabbit)
Serious eye irritation slightly irritating - 24 h (rabbit)
Respiratory or skin sensitization No sensitizing effects known
Germ cell mutagenicity non mutagenic (Ames test)
Carcinogenicity no indications for a carcinogenic potential
Reproductive toxicity no adverse effect on reproduction (rat)
STOT-single exposure irritating to eye and skin; Category 2 respiratory tract irritation
STOT-repeated exposure effects on liver have been reported
Aspiration hazard no data available

◆ **SECTION 12: Ecological information**

12.1 Toxicity

Aquatic toxicity

Toxicity to fish	LC50	96h	10-100mg/L	<i>Pimephales promelas</i>
Toxicity to aquatic invertebrates	EC50	48h	47.8 mg/L	<i>Daphnia magna</i>
Toxicity to aquatic algae and cyanobacteria	ErC50	96h	29.95 mg/L	<i>Pseudokirchneriella subcapitata</i>
Toxicity to microorganisms	EC50	3h	842mg/L	sewage, domestic

12.2 Persistence and degradability

Biodegradation readily biodegradable (73% in 10days)

12.3 Bioaccumulative potential Bioconcentration factor between 100-3000
very low potential for bioaccumulation

12.4 Mobility in soil log Pow = 3.09; very low potential for geoaccumulation

12.5 Results of PBT and vPvB assessment Not a PBT, vPvB substance according to the REACH regulation

12.6 Other adverse effects No further information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods Observe all federal, state, and local environmental regulations.
Contact a licensed professional waste disposal service to dispose of this material.
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Do not dispose in sewage.

◆ **SECTION 14: Transport information**

	ADR/RID	IMDG	ICAO/IATA
14.1 UN Number	-	-	-
14.2 UN proper shipping name	-	not a hazardous product	-
14.3 Transport hazard class	-	-	-
14.4 Packaging group	-	-	-
14.5 Environmental hazards	not environmentally hazardous, not a marine pollutant based on available data		
14.6 Special precautions for the user	Combustible liquid; Flash point 66°C (closed cup)		

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14.7 **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** See regulatory information for transport approval

SECTION 15: Regulatory information

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

Major accident hazard Seveso III not applicable

International Chemical Inventory Status

USA (TSCA) listed

Canada (DSL) listed

Australia (AICS) listed

Japan (MITI) listed

Korea (KECL) listed

Philippines (PICCS) listed

China listed

New Zealand listed

Taiwan listed

15.2 **Chemical safety assessment** A Chemical Safety Assessment will be carried out at the time of REACH registration

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Further information:

Sections in which changes have been made since the last version are marked with a diamond ♦ in the left hand margin.

Abbreviations and acronyms in English language:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Classification for Labeling and Packaging
DSL	Domestic Substances List
EC	European Commission
EC50	Half maximal effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
ErC50	EC50 in terms of reduction of growth rate
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
IATA	International Air Transport Association
IBC	International Bulk Chemical
ICAO	International Civil Aviation Organization
IMDG	International Maritime Code for Dangerous Goods
KECL	Korea Existing Chemicals List
KOC	Soil adsorption coefficient
KOW	Partition Coefficient octanol-water
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
MARPOL	International Convention for the Prevention of Pollution from Ships
MITI	Ministry of International Trade and Industry
NOAEC	No Observed Adverse Effect Concentration
PBT	Persistent, bioaccumulative and toxic substances
PICCS	Philippine Inventory of Chemicals and Chemical Substances
RID	Regulations Concerning the International Transport of Dangerous Goods by Rail
STOT	Specific target organ toxicity
TSCA	Toxic Substances Control Act
UN	United Nations
vPVB	(very) Persistent, (very) Bioaccumulative

Sources

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

ECHA <https://echa.europa.eu/substance-information/-/substanceinfo/100.003.291>

HSDB <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/r?dbs+hsdb:@term+@r+@rel+108-82-7>