

Safety data sheet
COMMISSION REGULATION (EU) 2020/878 of 18 June
2020 amending Annex II to Regulation (EC) No
1907/2006

Printing date 08.06.2022

Version number 1

Revision: 08.06.2022

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

- **1.1 Product identifier**
- **Trade name:** di-n-butylether
- **CAS Number:**
142-96-1
- **EC number:**
205-575-3
- **Index number:**
603-054-00-9
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Solvents
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Kairav Chemofarbe Industries Ltd.
502 Filix, LBS Marg,
Opposite Asian Paints, Bhandup (West),
Mumbai-400078
- **Further information obtainable from:**
Ravi Pande
Phone: +91-22-25968361/ 62 /25962453/25962457
Fax: +91-22-25958586
Mobile : +91 8879003729
- **1.4 Emergency telephone number:**
Contact details of European importer
Emergency telephone number:
Telephone number of EU importer:
Opening hours:
Other Comments (e.g. language(s) of the phone service): English

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



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- **Identification number(s)**
- **EC number:** 205-575-3
- **Index number:** 603-054-00-9
- **Additional information:**
Molecular Formula : C₈H₁₈O
Molecular Weight: 130.23 g/mol

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Do not leave affected persons unattended.

Move out of dangerous area

First aid personnel should pay attention to their own safety.

· **After inhalation:**

Do not use mouth to mouth or mouth to nose resuscitation.

Keep person warm and at rest.

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Maintain an open airway.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

1. Remove any contaminated clothing.

2. Wash skin with soap and water for at least 15 minutes.

3. Get medical attention if irritation develops or persists.

4. Wash clothing before reuse.

· **After eye contact:**

1. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

2. Get medical attention immediately.

Check and remove contact lenses, if present and easy to do.

Protect unharmed eye.

· **After swallowing:**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Drink plenty of water.

· **Information for doctor:** *Treat symptomatically and supportively.*

· **4.2 Most important symptoms and effects, both acute and delayed**

Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
alcohol-resistant foam, dry powder, carbon dioxide, water spray jet
- **5.2 Special hazards arising from the substance or mixture**
Carbon oxides
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid breathing vapors, mist or gas.
Avoid contact with the skin, eyes and clothing.
Do not eat, drink or smoke when using this product.
Ensure adequate ventilation
Keep unprotected persons away.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Avoid direct contact with the substance.
Avoid physical damage to containers.
Wash thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice.
- **Information about fire - and explosion protection:**
Keep away from source of ignition ,fire promoting chemicals.

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Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool, dry, ventilated area away from heat sources.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Check all containers are clearly labelled and free from leaks.

· **Information about storage in one common storage facility:**

Isolate from incompatible material.

Keep away from food materials

Keep away from heat and sunlight.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store below - +15°C.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:** Not required.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** *Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.*

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves** Nitrile rubber.

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- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

- **General Information**

· Appearance:	Liquid
· Form:	Liquid
· Colour:	Colourless
· Odour:	Fruit-like

- **pH-value (0.2 g/l) at 20 °C:** 5.2

- **Change in condition**

· **Melting point/freezing point:** -95.2 °C
 · **Initial boiling point and boiling range:** 140 °C (at 1013.25 hPa)

- **Flash point:** 25 °C (Closed cup)

- **Flammability:** Flammable liquid.

- **Ignition temperature:** 175 °C

- **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Vapour pressure at 25 °C:** 6.4 hPa

- **Density at 20 °C:** 0.77 g/cm³

- **Solubility in / Miscibility with water at 20 °C:** 0.113 g/l

- **Partition coefficient: n-octanol/water:** 3.35 log POW

- **Viscosity:**
 · **Dynamic at 20 °C:** 0.69 mPas

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· 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
Stable at room temperature in closed containers under normal storage and handling conditions.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Exothermic reaction with oxidising agents, strong acids.
Risk of explosion with nitrogen trichloride.
- **10.4 Conditions to avoid**
Avoid electro-static discharge.
Avoid contact with incompatible materials
Avoid excessive heat and light.
- **10.5 Incompatible materials:**
Strong acids and bases , strong oxidizing agents
Risk of explosion with: nitrogen trichloride
- **10.6 Hazardous decomposition products:** Carbon oxides

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

Oral LD50 7400 mg/kg bw (rat(Wistar)male) (Acute Toxicity: oral)

Dermal LD50 7741 mg/kg bw (rabbit (New Zealand White)) (Acute Toxicity: dermal)

Inhalative LC50 216 mg/l/4H (rat(Wistar)male) (Acute Toxicity: inhalation)

· Primary irritant effect:

· Skin corrosion/irritation

Causes skin irritation.

In a GLP patch test according to EC guideline B.4. (1992) and OECD TG 404 (2002), dibutyl ether (purity > 99.3 %) was only slightly irritating to the skin of 3 male rabbits after a 4-hour semi-occlusive exposure. During the observation time a very slight erythema (barely perceptible, grade 1) was observed in all three rabbits 60 minutes and 24 hours after patch removal.

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Serious eye damage/irritation

Causes serious eye irritation.

In a study on sensory response to dibutyl ether, 200 ppm (corresponding to 1066 mg/m³) dibutyl ether were described as irritating to the eyes and nose, but not to the throat of a majority of 12 volunteers exposed in a gas cabinet to the substance for a period of 15 minutes

- **Respiratory or skin sensitisation**

Based on available data, the classification criteria are not met.

- **Additional toxicological information:**

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** No further relevant information available

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure**

May cause respiratory irritation.

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** No further relevant information available

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

EC 50	14.5 mg/l (<i>Pseudokirchneriella subcapitata</i>) (Toxicity to aquatic algae and cyanobacteria)
	>18.76 mg/l (<i>Daphnia magna</i>) (Short-term toxicity to aquatic invertebrates)
LC 50	32.3 mg/l (<i>Pimephales Promelas</i> (Fathead Minnow)) (Short-term toxicity to fish)

- **12.2 Persistence and degradability** Not readily biodegradable.

- **12.3 Bioaccumulative potential**

Bioconcentration studies were performed on carp (*Cyprinus carpio*) with a duration of 42 days following OECD Guideline 305C. At a test concentration of 0.2 mg dibutyl ether/L, a BCF of 47-83 was measured. At a second test concentration of 0.02 mg dibutyl ether/L, a BCF of 30 to 114 was measured. These values indicate a low potential for dibutyl ether to bioconcentrate or bioaccumulate in aquatic organisms.

- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The substance is not PBT.
- **vPvB:** The substance is not vPvB.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Incinerate according to applicable local, state and federal regulations.
 Must not be disposed together with household garbage.
- **Uncleaned packaging:**
- **Recommendation:**
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Disposal must be made according to official regulations.
 Dispose of as unused product.
 Do not re-use empty containers

SECTION 14: Transport information

- | | |
|---|----------------------|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN1149 |
| · 14.2 UN proper shipping name | |
| · ADR | 1149 DIBUTYL ETHERS |
| · IMDG, IATA | DIBUTYL ETHERS |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids. |
| · Label | 3 |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | III |

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- | | |
|--|--------------------------------|
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | |
| · Hazard identification number (Kemler code): | Warning: Flammable liquids. |
| · EMS Number: | 30
F-E,S-D |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | |
| | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Limited quantities (LQ) | 5L |
| · Transport category | 3 |
| · Tunnel restriction code | D/E |
| · UN "Model Regulation": | UN1149, DIBUTYL ETHERS, 3, III |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning
- **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*

P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*

P405 *Store locked up.*

P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

INTERNATIONAL INVENTORIES -

Australian Inventory of Industrial Chemicals (AIIC) - listed

China - Chemical Inventory of Existing Chemical Substances (IECSC) - listed

Environment Canada - Domestic Substances List (DSL) - listed

EPA - TSCA - Inventory - listed

Korea - KE Numbers - listed

Mexico - National Inventory of Chemical Substances - listed

New Zealand - Inventory of Chemicals (NZIoC) - listed

Philippine Inventory of Chemicals and Chemical Substances (PICCS) - listed

Taiwan Chemical Substance Inventory (TCSI) - listed

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

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.

· **Department issuing SDS:** Product safety department.

· **Contact:**

Ravi Pande

Phone: +91-22-25968361/ 62 /25962453/25962457

Fax: +91-22-25958586

Mobile : +91 8879003729

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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*PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 3: Flammable liquids – Category 3**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3***· Sources**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labelling and packaging of substances and mixtures, amending and repealing COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006

ECHA -

<https://echa.europa.eu/registration-dossier/-/registered-dossier/11808/9/?documentUUID=452731a6-eb04-4aec-887f-7e393b315769>

Gestis

<https://gestis-database.dguv.de/data?name=028060>

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