

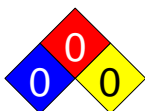
Registered office: Pirojshanagar, Eastern Express Highway, Vikhroli, Mumbai 400 079, India.  
Phone: (91-22) 2518 8010 / 2518 8020 / 2518 8030 extn: 4768 Fax: (91-22) 2518 8096 / 2518 8068  
Printing date 08/05/2015 e-mail: rv.dubhashi@godrejinds.com Reviewed on 08/05/2015

## 1 Identification

- **Trade name:** BEHENIC ACID
- **CAS Number:**  
112-85-6
- **EC number:**  
204-010-8
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Use as laboratory reagent.  
Cosmetics, personal care products, Formulation of preparations.  
Use as Lubricants and greases.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Godrej Industries Limited  
Eastern Express Highway,  
Vikhroli (east), Mumbai,  
India. Pin - 400 079
- **Information department:**  
E-mail: ar.singh@godrejinds.com  
Telephone : 91-22-25188010 / 20 / 30  
Fax No. : 91-22-251880 96 / 68
- **Emergency telephone number:**  
Contact details of importer  
Emergency telephone number:  
Telephone number of importer:  
Opening hours:  
Other Comments (e.g. language(s) of the phone service): English

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
The substance is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 0 Health = 0  
FIRE 0 Fire = 0  
REACTIVITY 0 Reactivity = 0

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
112-85-6 docosanoic acid
- **Identification number(s)**
- **EC number:** 204-010-8
- **Additonal information:**  
Synonyms : Docosanoic acid  
Formula : C<sub>22</sub>H<sub>44</sub>O<sub>2</sub>  
Molecular Weight : 340.58 g/mol

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**  
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- **After skin contact:**  
Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes.  
Get medical attention if irritation develops or persists. Wash clothing before reuse.
- **After eye contact:**  
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
- **After swallowing:**  
Never give anything by mouth to an unconscious person. Rinse mouth with water.  
Consult a physician
- **Information for doctor:** Treat symptomatically and supportively.
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Use water spray, Carbon Dioxide, Dry Chemical or Alcohol Foam.
- **For safety reasons unsuitable extinguishing agents:** Do NOT use water jet.
- **Special hazards arising from the substance or mixture** Carbon oxides (CO<sub>x</sub>)
- **Advice for firefighters**
- **Protective equipment:**  
Wear self contained breathing apparatus for fire fighting if necessary

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- **Additional information** Water mist may be used to cool closed containers.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment
- **Environmental precautions:**  
Try to prevent the material from entering drains or water courses.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Remove sources of ignition, ventilate area, sweep up store in a closed container.  
Contaminated surfaces will be extremely slippery. Clean contaminated surface thoroughly
- **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.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Use full protective gear. Protect containers from physical damage / direct sunlight / water.
- **Information about protection against explosions and fires:**  
Keep away from heat, sparks and flame.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Use leak-proof and sealed bags. Store on pallets in well ventilated dry locations at ambient temperature away from direct sunlight.
- **Information about storage in one common storage facility:**  
Store away from incompatible materials.
- **Further information about storage conditions:**  
Keep container in a dry and well-ventilated place. Protect from light. Keep away from heat.  
Avoid temperatures above 200 °C.
- **Specific end use(s)**  
Use as laboratory reagent.  
Cosmetics, personal care products, Formulation of preparations.  
Use as Lubricants and greases.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**  
No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
Not required.

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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**  
Use adequate ventilation to keep airborne concentrations low. Avoid inhalation of heated vapours.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Remove contaminated clothing and wash hands between breaks and at the end of duty hours. Eye washes & Emergency Showers must be located in all work & storage areas.
- **Breathing equipment:** Air respirator
- **Protection of hands:**



Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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

- **Material of gloves** Butyl rubber gloves, Nitrile rubber gloves
- **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:** Safety glasses
- **Body protection:** Lightweight protective clothing, Safety Shoes

## 9 Physical and chemical properties

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

· **General Information**

· <b>Appearance:</b>	Solid
· <b>Form:</b>	Soloid Flakes
· <b>Color:</b>	White
· <b>Odor:</b>	slight characteristic Odour
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	77-78 °C (171-172 °F) (171-172 °F)
· <b>Boiling point/Boiling range:</b>	306 °C (583 °F) ((583 °F) (60 mm))
· <b>Flash point:</b>	> 200 °C (> 392 °F) (> 392 °F)
· <b>Flammability (solid, gaseous):</b>	Product is not flammable.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Vapor pressure:</b>	<1 mm
· <b>Density at 20 °C (68 °F):</b>	0.5 g/cm <sup>3</sup> (4.173 lbs/gal) (4.173 lbs/gal)

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<b>· Relative density</b>	0.822
<b>· Vapour density</b>	>1 (Air = 1)
<b>· Solubility in / Miscibility with Water:</b>	Insoluble.
<b>· Partition coefficient (n-octanol/water) at 25 °C (77 °F):</b>	9.9088 log POW
<b>· Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>· Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Product is very stable under the prescribed storage conditions
- **Thermal decomposition / conditions to be avoided:** Keep away from heat
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Direct sources of heat
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Acid smoke and irritating fumes of Carbon Oxides

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Oral	LD 50	> 2000 mg/kg bw (rat(Sprague-Dawley)male/female) > 5000 mg/kg bw (rat (Wistar))
Dermal	LD50	> 2000 mg/kg bw (rat(Wistar)male/female)

· **Primary irritant effect:**

· **on the skin:**

Irritation parameter : overall irritation score

Basis : mean

Time point: 14 days

Score: 1.33

Max. score: 4

Result:

Docosanoic acid (CAS No. 112-85-6) is not an irritant to skin of the New Zealand white rabbits.

· **on the eye:**

Irritation parameter: overall irritation score

Basis: mean

Time point: 72 hrs.

Score: 28.3

Max. score: 85

Remarks: Eye Irritation Scoring Index =7.08

Docosanoic acid (CAS No. 112-85-6) is non-irritating when applied in the amount of 0.1

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gm in the conjunctival sac of the rabbits under test condition.

- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
 When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
 The substance is not subject to classification.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

EC50 (48 h)	> 5 mg/L (Daphnia magna)
EC50 (72h)	> 5 mg/L (Pseudokirchneriella Subcapitata)
LC50 (96 h)	> 5 mg/L (Oryzias latipes)

- **Persistence and degradability**

%Degr.: 69  
 Sampling time: 28 d  
 Docosanoic acid is inherently biodegradable in nature.

- **Other information:**

The BCF value of docosanoic acid reported was not  $\geq 500$  as well as the substance was found to be rapidly degradable  
 Thus considering only the value from classification criteria for aquatic classification of the substance, it is concluded that docosanoic acid does not exhibit short term aquatic toxicity.

- **Behavior in environmental systems:**

- **Bioaccumulative potential**

Log BCF (regression-based estimate): 0.50 (BCF = 3.16 L/kg wet-wt)  
 Biotransformation Half-Life (days) : 60 (normalized to 10 g fish)  
 Log BAF (Arnot-Gobas upper trophic): 4.31 (BAF = 2.02e+004 L/kg wet-wt)  
 Log Kow (experimental): not available from database  
 Log Kow used by BCF estimates: 9.91  
 Equation Used to Make BCF estimate:  
 Log BCF = 0.50 (Ionic; Log Kow dependent)

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Estimated Log BCF = 0.500 (BCF = 3.162 L/kg wet-wt)

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

- **Additional ecological information:**

- **General notes:** Generally not hazardous for water

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** *Smaller quantities can be disposed of with household waste.*
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	<i>Not Applicable</i>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, IMDG, IATA</b></li> <li>· <b>ADR</b></li> </ul>	<i>Not Applicable</i> <i>Void</i>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul>	<i>Not Applicable</i>
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	<i>Not Applicable</i>
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> </ul>	<i>Not applicable.</i>
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>	<i>Not applicable.</i>
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	<i>Not applicable.</i>
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> <li>· <b>DOT</b></li> <li>· <b>Quantity limitations</b></li> </ul>	<i>On passenger aircraft/rail: Not Applicable</i> <i>On cargo aircraft only: Not Applicable</i>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<i>Not Applicable</i>

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** *Substance is not listed.*
- **Section 313 (Specific toxic chemical listings):** *Substance is not listed.*
- **TSCA (Toxic Substances Control Act):** *Substance is listed.*
- **Proposition 65**
- **Chemicals known to cause cancer:** *Substance is not listed.*
- **Chemicals known to cause reproductive toxicity for females:** *Substance is not listed.*
- **Chemicals known to cause reproductive toxicity for males:** *Substance is not listed.*
- **Chemicals known to cause developmental toxicity:** *Substance is not listed.*

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- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**  
Substance is not listed.
- **GHS label elements** Not applicable
- **Hazard pictograms** Not applicable
- **Signal word** Not applicable
- **Hazard statements** Not applicable
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**  
EU (EINECS) – Listed Canada  
- DSL/NDSL – Listed China-  
NEPA (IECSC) – Listed  
Japan-MITI – Listed  
Philippines-PICCS – Listed  
New Zealand (NZIoC) – Listed  
Australia-AICS – Listed
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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:**  
E-mail: ar.singh@godrejinds.com  
Telephone : 91-22-25188010 / 20 / 30  
Fax No. : 91-22-251880 96 / 68
- **Date of preparation / last revision** 08/05/2015 / -
- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists EINECS:  
European Inventory of Existing Commercial Chemical Substances CAS:  
Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative
- **Sources**
  - Data from Registered dossier on ECHA website:  
<http://apps.echa.europa.eu/registered/data/dossiers/DISS-dffb4072-e472-47ae-e044-00144f67d031/DISS-dffb4072-e472-47ae-e044-00144f67d031> DISS-dffb4072-e472-47ae-e044-00144f67d031.html and  
<http://apps.echa.europa.eu/registered/data/dossiers/DISS-bde0beef-f4d8-5c0e-e044-00144f67d031/DISS-bde0beef-f4d8-5c0e-e044-00144f67d031> DISS-bde0beef-f4d8-5c0e-e044-00144f67d031.html
  - Data from HSDB:

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<http://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~w3IBTI:2>

• Data from INCHEM Database:

<http://www.inchem.org/documents/sids/sids/Docosanoic.pdf>

• **\* Data compared to the previous version altered.**

Section 3: Composition/Information on Ingredients

Section 4: First-aid measures.

Section 5: Fire-fighting measures

Section 6: Accidental Release measures

Section 7: Handling and storage.

Section 8: Exposure Controls/Personal protection.

Section 9: Physical and Chemical properties.

Section 10: Stability and Reactivity.

Section 11: Toxicological Information.

Section 12: Ecological Information

Section 13: Disposal consideration

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