

JALASANJ Co Ltd

MATERIAL SAFETY DATA SHEET

MSDS

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:..... Benzoyl Peroxide Paste (Stone Adhesive Hardener)

MANUFACTURER:..... JALASANJ

MANUFACTURER:

JALASANJ Company Ltd
No6, Mokhtari St, 17shahrivar St, Shadabad
Fath Highway (old karaj road) at 5km,
TEHRAN, IRAN
Phone Number: +98-21-66802834
www.jalasanj.com

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008):

Organic peroxides, E, H242

Eye irritation, 2, H319

Skin sensitisation, 1, H317

Acute aquatic toxicity, 1, H400

Chronic aquatic toxicity, 1, H410

Additional information:

For the full text of the H, EUH-phrases mentioned in this Section, see Section 16.

2.2. Other hazards

Environmental Effects:

Very toxic to fish. Very toxic to daphnia. Very toxic to algae.

Physical and chemical hazards:

Heating may cause a fire. Thermal decomposition giving flammable and toxic products

Decomposition products: See chapter 10

Other:

Results of PBT and vPvB assessment : According to REACH regulation, annex XIII, this mixture contains no substance meeting PBT and vPvB criteria.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>INGREDIENT NAME</u>	<u>CAS #</u>	<u>CONCENTRARION (%)</u>
Dibenzoyl peroxide	94-36-0	48 - 53
Nonylbenzoate, branched and linear	670241-72-2	10 – 20
Ethyleneglycol	107-21-1	<10

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

General advice:

Risk of ignition. In case of splashes, remove contaminated clothing and plunge it into water immediately.

Inhalation:

Move to fresh air. Oxygen or artificial respiration if needed. In case of persistent problems : Hospitalise.

Skin contact:

Wash off immediately with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/ attention.

Eye contact:

Wash open eyes immediately, abundantly and thoroughly for at least 15 minutes. Remove contact lenses. Consult an ophthalmologist.

Ingestion:

If the subject is unconscious, do not induce vomiting Consult a physician.

Protection of first-aiders:

In case of insufficient ventilation, wear suitable respiratory equipment. Protective suit.

4.2. Most important symptoms/effects, acute and delayed: No data available.

4.3. Indication of immediate medical attention and special treatment needed, if necessary: No data available.

5. FIRE FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Carbon dioxide (CO₂), Water spray, After cooling : Dry powder

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture:

The product burns violently (protect people from possible projections), Risk of explosion by shock, friction, fire or other sources of ignition., Contact with combustible material may cause fire, Through thermal decomposition, formation of very reactive free radicals. Thermal decomposition giving flammable and toxic products :

5.3. Advice for firefighters:**Specific methods:**

Fight fire from a distance (more than 15 m). Cool containers/tanks with water spray. In case of fire nearby, remove exposed containers.

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures:**

Prohibit all sources of sparks and ignition - Do not smoke. Evacuate non-essential staff and those not equipped with individual protection apparatus. Avoid contact with the skin and the eyes. Use personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment.

Prohibit all sources of sparks and ignition - Do not smoke. Evacuate non-essential staff and those not equipped with individual protection apparatus.

6.2. Environmental precautions:

Do not release into the environment. Do not let product enter drains.

6.3. Methods and materials for containment and cleaning up:**Methods for cleaning up:**

After cleaning, flush away traces with water. Recover waste water for processing later.

Recovery:

Never return spills in original containers for re-use. Shovel into suitable container for disposal. Keep contents moist. No sparking tools should be used.

6.4. Reference to other sections: None.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling:****Technical measures/Precautions:**

Storage and handling precautions applicable to products: Organic peroxides. Irritant. Sensitizing. Dangerous for the environment. Provide appropriate exhaust ventilation at machinery. Provide showers, eye-baths. Provide self-contained breathing apparatus nearby (for emergency intervention). Provide water supplies near the point of use. Provide fire-blanket nearby. Provide electrical earthing of equipment.

Safe handling advice:

Strictly limit the quantities of product in the work area to those which are absolutely necessary for the work in hand. Great cleanliness in work areas is a necessary and important factor for safety. Handle and open container with care. Prohibit all sources of sparks and ignition – Do not smoke. Protect from contamination. Never return any product to the container from which it was originally removed (risk of decomposition).

Never mix peroxides directly with accelerators (risk of explosion). Add each component separately to the resin. In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:

Take off immediately all contaminated clothing. When using do not eat, drink or smoke.

Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities:

Store in well insulated area (peroxide area) away from other substances. Storage buildings must be built and equipped so as not to exceed the maximum proscribed temperature limit. Use non-combustible construction materials. Keep/Store away from clothing/ combustible materials. Keep tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Do not smoke. Store in original container. Use only very clean containers and equipment free from traces of impurities. Never return unused material to storage receptacle. Do not reuse empty packaging to store other products. Protect the containers from any impacts. Take measures to prevent the build up of electrostatic charge. Provide earthing and safe electrical equipment. Provide impermeable floor.

Storage temperature: < 30 °C

Store between: 5 °C to 30 °C, (to maintain the technical properties of the product).

Incompatible products:

Strong oxidizing agents Strong reducing agents Acids Bases Heavy metal compounds Heavy metals Sulphur compounds Rust, ash, dusts (risk of self-accelerating exothermic decomposition) Strong oxidizing agents Strong reducing agents Acids Bases Heavy metal compounds

Heavy metals Sulphur compounds Rust, ash, dusts (risk of self-accelerating exothermic decomposition)

Packaging material:

Recommended: Keep only in the original container.

Keep only in the original container.

To be avoided: Ordinary metals (ordinary steel), copper, rubber (natural or synthetic), Glass - Stoneware (risk of contents spurting or spraying out if container ruptures due to overpressurization)

Ordinary metals (ordinary steel), copper, rubber (natural or synthetic), Glass - Stoneware (risk of contents spurting or spraying out if container ruptures due to overpressurization)

7.3. Specific end use(s): None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure Limit Values

Dibenzoyl peroxide:

Source	Date	Value Type	Value (ppm)	Value (mg/m3)	Remarks
ACGIH (US)	02 2012	TWA	-	5	-

Ethyleneglycol

Source	Date	Value Type	Value (ppm)	Value (mg/m3)	Remarks
EU ELV	12 2009	STEL	40	104	Indicative value
EU ELV	12 2009	SKIN	-	-	Can be absorbed through the skin.
EU ELV	12 2009	TWA	20	52	Indicative value
ACGIH (US)	02 2012	Ceiling	-	100	Aerosol

Derived No Effect Level (DNEL): DIBENZOYL PEROXIDE :

End Use	Inhalation	Ingestion	Skin contact
Workers	39 mg/m3 (LT, SE)		13,3 mg/kg bw/day (LT, SE)
Consumers		2 mg/kg bw/day (LT, SE)	

LE : Local effects, **SE :** Systemic effects, **LT :** Long term, **ST :** Short term

Predicted No Effect Concentration: DIBENZOYL PEROXIDE :

Compartment:	Value:
Fresh water	0,02 µg/l
Marine water	0,002 µg/l
Water (Intermittent release)	0,602 µg/l
Fresh water sediment	0,013 mg/kg dw
Marine sediment	0,001 mg/kg dw
Soil	0,003 mg/kg dw
Effects on waste water treatment plants	0,35 mg/l

8.2. Exposure controls:

Personal protective equipment:

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment., In the case of hazardous fumes, wear self contained breathing apparatus.

Hand protection:

Gloves (Nitrile rubber, Neoprene)

Eye/face protection:

Safety glasses/goggles and face-mask (during discharge)

Skin and body protection:

Protective suit

Environmental exposure controls: See chapter 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Physical state (20°C):

solid

Form:

pasty

Colour:

According to grade

white, red, blue

Odour:

characteristic

Olfactory threshold:

No data available.

pH:

No data available.

Melting point/range:

No data available.

Boiling point/boiling range:

No data available.

Flash point:	Not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Vapour pressure :	DIBENZOYL PEROXIDE : 0,009 Pa , at 25 °C
Vapour density:	No data available.
Relative density:	No data available.
Water solubility:	DIBENZOYL PEROXIDE : 0,35 mg/l at 20 °C (OECD Test Guideline 105)
Partition coefficient: n-octanol/water:	DIBENZOYL PEROXIDE : log Kow : 3,2 , at 22 °C (OECD Test Guideline 117) NONYLBENZOATE, BRANCHED AND LINEAR : log Kow : 6,1 - 6,4 , at 22 °C (OECD Test Guideline 117) ETHYLENEGLYCOL : log Kow : -1,36 , at 23 °C (calculated)
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Self-Accelerating decomposition temperature (SADT) :	50 °C
Viscosity:	No data available.
Explosive properties:	
Explosivity:	The substance or mixture is an organic peroxide classified as type E.
Oxidizing properties:	Organic peroxide
9.2. Other data:	
Active oxygen content:	3,30 %

10. STABILITY AND REACTIVITY

10.1. Reactivity: No data available.

10.2. Chemical stability:

The product is stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions:

Risk of explosion by shock, friction, fire or other sources of ignition.

10.4. Conditions to avoid:

Temperatures above 30 °C

(to maintain the technical properties of the product). Keep away from heat and sources of ignition (risk of exothermic decomposition). Protect from light. Protect from frost.

10.5. Incompatible materials to avoid:

Strong oxidizing agents, Strong reducing agents, Acids, Bases, Heavy metal compounds, Heavy metals, Sulphur compounds, Rust, ash, dusts (risk of self-accelerating exothermic decomposition), Follow conditions of use with : accelerators (amines, metallic salts).

10.6. Hazardous decomposition products:

Through thermal decomposition, formation of very reactive free radicals., Thermal decomposition giving flammable and toxic products :, Carbon dioxide (CO₂), Benzoic acid, Benzene, Phenyl benzoate, Diphenyl

11. TOXICOLOGICAL INFORMATION

All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.

11.1. Information on toxicological effects:

Acute toxicity:

Inhalation: According to its composition, this product should not be harmful in normal conditions of use

Inhalation of vapours due to thermal decomposition., Risk of irritation of respiratory system, Toxic effects cannot be excluded

DIBENZOYL PEROXIDE :

• In animals : No mortality/4 h/Rat: 24,3 mg/l (Method: OECD Test Guideline 403), eye irritation, Local irritation of the respiratory system (Dusts) (Active ingredient, 78 %)

NONYLBENZOATE, BRANCHED AND LINEAR :

• In animals : No mortality/4 h/Rat: 5,2 mg/l (Method: OECD Test Guideline 403), No specific toxic effects (Aerosol)

ETHYLENEGLYCOL :

• In animals : No mortality/6 h/Rat: 2,5 mg/l (Method: , Aerosol) (Aerosol)

FATTY ACIDS, C16-18, ZINC SALTS :

• In animals : LC50/1 h/rat: > 200 mg/l

Ingestion: From its composition, it must be considered as: Slightly harmful by ingestion

DIBENZOYL PEROXIDE :

• In animals : No mortality/Rat: 5 g/kg , No specific toxic effects (Active ingredient, 78 %)

NONYLBENZOATE, BRANCHED AND LINEAR :

• In animals : No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 423) , No specific toxic effects

ETHYLENEGLYCOL :

• In animals : LD50/Rat: 7.712 mg/kg

FATTY ACIDS, C16-18, ZINC SALTS :

• In animals : No mortality/rat: > 5.000 mg/kg (Method: OECD Test Guideline 401)

Dermal:

According to its composition, this product should not be harmful in normal conditions of use

NONYLBENZOATE, BRANCHED AND LINEAR :

• In animals : No mortality/Rat: 2.000 mg/kg (Method: OECD Test Guideline 402), No specific toxic effects

ETHYLENEGLYCOL :

• In animals : No mortality/Mouse: 3.500 mg/kg

FATTY ACIDS, C16-18, ZINC SALTS :

• In animals : No mortality/Rabbit: > 2.000 mg/kg

Local effects (Corrosion / Irritation / Serious eye damage):

Skin contact: According to its composition, can be considered as : Slightly irritating to skin

Eye contact: According to its composition, can be considered as : Slightly irritating to eyes

DIBENZOYL PEROXIDE :

• In animals : Mild eye irritation (OECD Test Guideline 405, Rabbit)

(Active ingredient, 78 %)

Respiratory or skin sensitisation:

Inhalation: No data available.

Skin contact: According to its composition : May cause an allergic skin reaction.

DIBENZOYL PEROXIDE :

• In man : Skin allergy was observed.

• In animals : Strong sensitizing effects by skin contact. (Method: OECD Test Guideline 429 LLNA: Local Lymph Node Assay)

Sensitizing effects by skin contact. (Method: OECD Test Guideline 406 Buehler method, Guinea pig)

CMR effects :

Mutagenicity: contains no ingredient considered as genotoxic

Carcinogenicity:

DIBENZOYL PEROXIDE :

• In animals : Absence of carcinogenic effects
(rat and mouse, Chronic, By diet)
(rat and mouse, Chronic, dermal route)

ETHYLENEGLYCOL :

• In animals : Absence of carcinogenic effects (rat, mouse, 2 years, By diet)

Reproductive toxicity:

Fertility: Based on the available data, the substance is not suspected of having reprotoxic potential.

DIBENZOYL PEROXIDE :

• In animals : Absence of toxic effects on fertility
NOAEL (Parental toxicity): 500 mg/kg bw/day
NOAEL (Fertility): 1.000 mg/kg bw/day
NOAEL (Developmental Toxicity): 500 mg/kg bw/day
(Method: OECD Test Guideline 422, Rat, By oral route)

NONYLBENZOATE, BRANCHED AND LINEAR :

• In animals : Reproductive/Developmental Effects Screening Assay: Absence of toxic effects on fertility, Effects on embryofoetal and postnatal development

NOAEL (Parental toxicity): 1 g/kg

NOAEL (Fertility): 1 g/kg

NOAEL (Developmental Toxicity): 0,3 g/kg

(Method: OECD Test Guideline 421, Rat, By oral route)

ETHYLENEGLYCOL :

• In animals : Multiple generation reproduction test: No toxic effects for reproduction

NOAEL (Parental toxicity): 1 g/kg

NOAEL (Fertility): 1 g/kg

(Rat, By diet)

FATTY ACIDS, C16-18, ZINC SALTS :

Foetal development:

Based on the available data, the substance is not suspected of having developmental toxicity potential.

DIBENZOYL PEROXIDE :

• In animals : Exposure during pregnancy: Absence of toxic effects for foetal development at non toxic maternal doses, No teratogenic effects

NOAEL (Developmental Toxicity): 300 mg/kg bw/day

NOAEL (Maternal Toxicity): 300 mg/kg bw/day

(Method: OECD Test Guideline 414, Rat, By oral route)

NONYLBENZOATE, BRANCHED AND LINEAR :

• In animals : Exposure during pregnancy
(Method: OECD Test Guideline 414, By oral route)

Slow foetal development, Side effects due to maternal toxicity., No teratogenic effects

NOAEL (Developmental Toxicity): 300 mg/kg bw/day

NOAEL (Maternal Toxicity): 300 mg/kg bw/day

(Rat)

Toxic effects for foetal development, Preimplantation loss, Visceral malformations

NOAEL (Developmental Toxicity): 150 mg/kg bw/day

NOAEL (Maternal Toxicity): 450 mg/kg bw/day

(Rabbit)

ETHYLENEGLYCOL :

- In animals : Exposure during pregnancy
Absence of toxic effects for foetal development
NOAEL (Developmental Toxicity) :
NOAEL (Maternal Toxicity) : 1 g/kg
(Rabbit, By oral route)
Toxic effects for foetal development at toxic maternal doses, No teratogenic effects
NOAEL (Developmental Toxicity) : 0,15 mg/l
NOAEL (Maternal Toxicity) : 1 mg/l
(By inhalation)

Specific target organ toxicity :
Single exposure :

Inhalation:

Dust inhalation: , Risk of irritation of respiratory system

Repeated exposure:

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

DIBENZOYL PEROXIDE :

- In animals : By diet: decreased growth rate, atrophy, Target organs: Testes, NOAEL= 200mg/kg bw/day (Rat, 2 years)
dermal route: No specific toxic effects
NOAEL= > 833mg/kg bw/day (Mouse, Repeated exposure)
(Chronic)

NONYLBENZOATE, BRANCHED AND LINEAR :

- In animals : By oral route: increased organ weight, Effect reversible within a few days, Target organs: Liver, Kidney, NOAEL= 300mg/kg bw/day (Method: OECD Test Guideline 408, Rat, 3 months)

ETHYLENEGLYCOL :

- In animals : By diet: Target organs: Kidney, NOAEL= 150 mg/kg (Rat, Chronic, 52 Weeks)
dermal route: NOAEL= 8.000 mg/kg (Dog, 4 Weeks)

Aspiration hazard:

Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicology Assessment: All available and relevant data on this product and/or the components quoted in section 3 and/or the analogue substances/metabolites have been taken into account for the hazard assessment.
Acute aquatic toxicity : Very toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.1. Acute toxicity :

Fish:

From its composition, it must be considered as: Very toxic to fish.

DIBENZOYL PEROXIDE :

LC50, 96 h (Oncorhynchus mykiss) : 0,0602 mg/l (Method: OECD Test Guideline 203)

NONYLBENZOATE, BRANCHED AND LINEAR :

EC50, 96 h (Cyprinus carpio (Carp)) (Method: OECD Test Guideline 203) No effect up to the limit of solubility

ETHYLENEGLYCOL :

LC50, 96 h (Pimephales promelas (fathead minnow)) : 72.860 mg/l (Method: US EPA)

Aquatic invertebrates:

From its composition, it must be considered as: Very toxic to daphnia.

DIBENZOYL PEROXIDE :

EC50, 48 h (Daphnia magna (Water flea)) : 0,110 mg/l (Method: OECD Test Guideline 202)

NONYLBENZOATE, BRANCHED AND LINEAR :

48 h (Daphnia magna (Water flea)) (Method: OECD Test Guideline 202, Immobilization) No effect up to the limit of solubility

ETHYLENEGLYCOL :

EC50, 48 h (Daphnia magna (Water flea)) : > 100 mg/l (Method: OECD Test Guideline 202)

Aquatic plants:

From its composition, it must be considered as: Very toxic to algae.

DIBENZOYL PEROXIDE :

ErC50, 72 h (Pseudokirchneriella subcapitata (green algae)) : 0,0711 mg/l (Method: OECD Test Guideline 201)

NONYLBENZOATE, BRANCHED AND LINEAR :

72 h (Desmodesmus subspicatus (green algae)) (Method: OECD Test Guideline 201, growth rate inhibition) No effect up to the limit of solubility

ETHYLENEGLYCOL :

ErC50, 96 h (Pseudokirchneriella subcapitata (green algae)) : 6.500 - 13.000 mg/l (Method: US EPA)

Microorganisms:

DIBENZOYL PEROXIDE :

EC50, 30 min (Activated sludge) : 35 mg/l (Method: OECD Test Guideline 209, Respiration inhibition)

NONYLBENZOATE, BRANCHED AND LINEAR :

EC50, 3 h (Activated sludge) : > 1.000 mg/l (Respiration inhibition)

ETHYLENEGLYCOL :

EC 5, 16 h (Pseudomonas putida) : > 10.000 mg/l (Method: DIN 38412)

Aquatic toxicity / Long term toxicity:

Fish:

NONYLBENZOATE, BRANCHED AND LINEAR :
 NOEC, 33 d (Danio rerio (zebra fish)) : 0,043 mg/l (Method: OECD Test Guideline 210)

Aquatic invertebrates:

DIBENZOYL PEROXIDE :
 EC10, 21 d (Daphnia magna (Water flea)) : 0,001 mg/l (Method: OECD Test Guideline 211, Reproduction inhibition)

NONYLBENZOATE, BRANCHED AND LINEAR :
 21 d (Daphnia magna (Water flea)) (Method: OECD Test Guideline 211, Growth inhibition/Reproduction inhibition) No effect up to the limit of solubility

Aquatic plants:

DIBENZOYL PEROXIDE :
 NOEC r, 72 h (Pseudokirchneriella subcapitata (green algae)) : 0,02 mg/l (Method: OECD Test Guideline 201)

NONYLBENZOATE, BRANCHED AND LINEAR :
 72 h (Desmodesmus subspicatus (green algae)) (Method: OECD Test Guideline 201, growth rate inhibition) No effect up to the limit of solubility

Non aquatic toxicity / Acute toxicity :**Toxicity to soil dwelling organisms:**

DIBENZOYL PEROXIDE :
 LC50, 14 d (Eisenia fetida (earthworms)) : > 1.000 mg/kg (Soil dw) (Method: OECD Test Guideline 207)
 EC10, 28 d (Microorganisms) : 1.000 mg/kg (Soil dw) (Method: OECD Test Guideline 216)

NONYLBENZOATE, BRANCHED AND LINEAR :
 LC50, 14 d (Eisenia fetida (earthworms)) : > 1.000 mg/kg (Soil dw) (Method: OECD Test Guideline 207)

Terrestrial plants:

NONYLBENZOATE, BRANCHED AND LINEAR :
 NOEC, 21 d (Avena sativa (oats)) : 32 mg/kg (Method: OECD Test Guideline 208)
 NOEC, 21 d (Brassica napus (Rapeseed)) : 320 mg/kg (Method: OECD Test Guideline 208)

12.2. Persistence and degradability :**Stability in water:**

DIBENZOYL PEROXIDE :
 Half-life: < 2,4 h at 50 °C and pH 4 - 9
 Method: OECD Test Guideline 111

Biodegradation (In water):
All the products and/or components quoted in section 3 and/or analogue substances/metabolites are readily biodegradable.

DIBENZOYL PEROXIDE :
 Readily biodegradable: 71 % after 28 d (Method: OECD Test Guideline 301 D)

NONYLBENZOATE, BRANCHED AND LINEAR :
 Readily biodegradable: 89 % after 28 d (Method: OECD Test Guideline 301 B)

ETHYLENEGLYCOL :
 Readily biodegradable: 90 - 100 % after 10 d (Method: OECD Test Guideline 301 A)

12.3. Bioaccumulative potential :

Bioaccumulation:
Based on the available information, it is not possible to conclude on the bioaccumulation potential of this mixture.

DIBENZOYL PEROXIDE :
 Partition coefficient: n-octanol/water: log Kow : 3,2 , at 22 °C (Method: OECD Test Guideline 117)

NONYLBENZOATE, BRANCHED AND LINEAR :
 Partition coefficient: n-octanol/water: log Kow : 6,1 - 6,4 , at 22 °C (Method: OECD Test Guideline 117)

ETHYLENEGLYCOL :
 Partition coefficient: n-octanol/water: log Kow : -1,36 , at 23 °C (Method: calculated)

12.4. Mobility in soil - Distribution among environmental compartments:

DIBENZOYL PEROXIDE :
 0,009 Pa, 25 °C

Absorption / desorption:

DIBENZOYL PEROXIDE :
 log Koc: 3,8 (Method: OECD Test Guideline 121)
 NONYLBENZOATE, BRANCHED AND LINEAR :
 log Koc: 3,7 - 3,8 (Method: OECD Test Guideline 121)

12.5. Results of PBT and vPvB assessment :

According to REACH regulation, annex XIII, this mixture contains no substance meeting PBT and vPvB criteria.

12.6. Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment:**

Disposal of product: Do not dispose of waste into sewer. Eliminate the product by incineration after dilution in a suitable flammable solvent (in accordance with local and national regulations). Amount of active oxygen must be below 1%.

Disposal of packaging: Do not release into the environment. Destroy packaging by incineration at an approved waste disposal site (in accordance with local and national

14. TRANSPORT INFORMATION

Regulation	14.1. UN number	14.2. UN proper shipping name	14.3. Class	Label	14.4. PG*	14.5. Environmental hazards	14.6. Special precautions for user
ADR	3108	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE, NONYLBENZOATE, BRANCHED AND LINEAR)	5.2	5.2		yes	
ADN	3108	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE, NONYLBENZOATE, BRANCHED AND LINEAR)	5.2	5.2		yes	
ADN	3108	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE, NONYLBENZOATE, BRANCHED AND LINEAR)	5.2	5.2		yes	
IATA Cargo	3108	Organic peroxide type E, solid (Dibenzoyl peroxide, Nonylbenzoate, branched and linear)	5.2	5.2(74F)		yes	
IATA Passenger	3108	Organic peroxide type E, solid (Dibenzoyl peroxide, Nonylbenzoate, branched and linear)	5.2	5.2(74F)		yes	
IMDG	3108	ORGANIC PEROXIDE TYPE E, SOLID (DIBENZOYL PEROXIDE, NONYLBENZOATE, BRANCHED AND LINEAR)	5.2	5.2		Marine pollutant	EmS Number: F-J, S-R Mark: MP

*Description: 14.3. Transport hazard class(es)
14.4. Packing group

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Safety data sheets: accordance with Annex II of Regulation (EC) No 1907/2006 and its amendment(s)

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

15.2. Chemical safety assessment:

A Chemical Safety Assessment has been carried out for this substance. (Dibenzoyl peroxide)

INVENTORIES:

For the inventory details, see Appendix.

16. OTHER INFORMATION**Full text of H, EUH-phrases referred to under sections 2 and 3**

H241 Heating may cause a fire or explosion.

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

Further information

This product must be handled only by personnel well informed of safety conditions. When used in formulations, contact us for labelling.

Thesaurus:

NOAEL : No Observed Adverse Effect Level (NOAEL)

LOAEL : Lowest Observed Adverse Effect Level (LOAEL)

bw : Body weight

food : oral feed

dw : Dry weight

vPvB : very Persistent and very Bioaccumulative

PBT : Persistent, Bioaccumulative and Toxic

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Jalsanj Co Ltd. The data on this sheet is related only to the specific material designated herein. Jalsanj Co Ltd. assumes no legal responsibility for use or reliance upon these data.