



NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

**Hazard-determining components of labelling:**

dibenzoyl peroxide  
dibutyl maleate

**Hazard statements**

H242 Heating may cause a fire.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H373 May cause damage to the kidneys through prolonged or repeated exposure.  
Route of exposure: Oral.  
H400 Very toxic to aquatic life.

**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P220 Keep apart from dirt, rust, chemicals, especially reducing substances, acids, alkaline solutions, amines and heavy metal compounds (such as accelerator, dessicative, metal soaps).  
P273 Avoid release to the environment.  
P234 Keep only in original container.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 Get medical advice/attention if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P410 Protect from sunlight.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/international regulations.

**Other hazards**

Flammable.

Risk of fire on contact with combustible substances or other substances effective in promoting the decomposition reaction. Fire propagating effect due to oxygen release. Thermal decomposition with temperatures above 50 °C (SADT) Pls. refer to section 10

Results of PBT and vPvB assessment

PBT: Not applicable.




vPvB: Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical characterisation: Mixtures**

**Description:** Mixture of substances listed below with non hazardous additions.

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

<b>· Dangerous components:</b>		
CAS: 94-36-0 EINECS: 202-327-6 Reg.nr.: 01-2119511472-50	dibenzoyl peroxide Org. Perox. B, H241;  Aquatic Acute 1, H400 (M=10); Eye Irrit. 2, H319; Skin Sens. 1, H317	50-100%
CAS: 105-76-0 EINECS: 203-328-4	dibutyl maleate  STOT RE 2, H373;  Skin Sens. 1, H317	10-25%

Additional information: For the wording of the listed risk phrases refer to section 16.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

###### General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

###### Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

In case of irregular breathing or respiratory arrest provide artificial respiration. Immediately remove any clothing soiled by the product.

###### After inhalation:

Supply fresh air or oxygen; call for doctor.

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

###### After skin contact:

Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Do not induce vomiting; call for medical help immediately.

**Most important symptoms and effects, both acute and delayed** No further relevant information available.

#### 5. FIREFIGHTING MEASURES

##### Extinguishing media

###### Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

###### Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the product promotes combustion.

May decompose explosively in absence of fire due to formation of vapour-air-mixture.

###### Advice for firefighters

###### Protective equipment:

Wear self-contained apparatus

Do not inhale explosion gases or combustion gases.

###### Additional information

Remove undamaged containers from the danger zone.

Cool endangered containers with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729      FAX: 01189 791927  
sales@norsekem.co.uk      www.norsekem.co.uk

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use suitable respiratory protective apparatus in case of insufficient ventilation.

Avoid contact with the eyes and skin.

Keep away from ignition sources.

Pls. refer to section 10

### 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.

### Methods and material for containment and cleaning up:

Collect with an inert, non-combustible, absorbent material (i.e. sand, diatomaceous earth, acid binder, universal binder).

Do not seal container gas tight.

Dispose contaminated material as waste according to item 13.

Pls. refer to section 10

### 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

Precautions for safe handling

Keep away from heat and direct sunlight.

Keep container tightly sealed.

Resistant to inert materials only.

Suitable materials: Stainless steel (DIN 1.4571), PVC, polyethylene, glass-lined apparatus.

Keep apart from dirt, rust, chemicals, especially reducing substances, acids, alkaline solutions, amines and heavy metal compounds such as accelerator, dessicative, metal soaps). Avoid naked flames, sparks, other ignition sources and sunlight.

Do not mix with accelerators or reducing agents.

Avoid contact with the eyes and skin.

Ensure good ventilation at the workplace.

Do not inhale gases / fumes.

Adhere to the workplace limit values and / or other threshold values.

Avoid release to the environment.

### Information about fire - and explosion protection:

Protect from heat.

Keep ignition sources away - Do not smoke.

Avoid naked flames, sparks, other ignition sources and sunlight.

Fumes can combine with air to form an explosive mixture.

Fire propagating effect due to oxygen release.

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

Keep apart from incompatible substances, dirt and high temperatures.  
Pls. refer to section 10

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

**Storage:**

**Requirements to be met by storerooms and containers**

Store in a cool location.

Store only in the original container

Prevent any seepage into the ground.

Adhere to the provisions of the Law on Water Protection.

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

Keep apart from other chemicals, in particular from accelerators.

Store away from food.

**Further information about storage conditions:**

Store in cool, dry conditions in closed container

Protect from heat and direct sunlight.

Protect from contamination.

Store out of the reach of children.

**Maximum storage temperature:** +25 °C

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

**Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

<b>. DNELs - 94-36-0 dibenzoyl peroxide</b>		
Oral	Long-term exposure - systemic effects	1.65 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	3.3 mg/kg bw/day (general population)
		6.6 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	2.9 mg/m <sup>3</sup> (general population)
		11.75 mg/m <sup>3</sup> (worker)

<b>. PNECs - 94-36-0 dibenzoyl peroxide</b>	
PNEC STP	0.35 mg/l (-)
PNEC aqua	0.000602 mg/l (freshwater)
	0.000602 mg/l (marine water)
	0.000602 mg/l (intermittent releases)
PNEC sediment	0.338 mg/kg (freshwater)
	0.0338 mg/kg (marine water)
PNEC soil	0.0758 mg/kg (soil dw)
	6.67 mg/kg (food)

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

**Additional information:** The lists valid during the making were used as basis.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from food. Do not eat, drink, smoke while working.

Avoid contact with the eyes and skin.

After contact with skin, wash immediately with plenty of soap and water.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Use skin protection cream for skin protection.

If skin irritation occurs: Get medical advice/attention.

**Respiratory protection:**

Adhere to the workplace limit values and / or other threshold values.

Use suitable respiratory protection in case of insufficient ventilation.

In case of brief exposure or low pollution use respiratory filter . In case of intensive or longer exposure use self-contained respiratory protective apparatus. Use Filter A/P2

**Protection of hands:** Protective gloves

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

**Eye Protection:** safety Glasses

**Body protection:** Protective work clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### General Information

**Form:** Pasty

**Colour:** White or Red

**Odour:** Characteristic

#### Change in condition

**Boiling point/Boiling range:** Not applicable

**Flash point:** Not applicable.

**Ignition temperature:** Not applicable

**Decomposition temperature:** 50 °C (SADT)

**Self-igniting:** Pls. refer to section 10

**Danger of explosion:** Pls. refer to section 10

**Density:** Not determined.

#### Solubility in / Miscibility with

**water:** Not miscible or difficult to mix.

**Other information** No further relevant information available.

## 10. STABILITY AND REACTIVITY

**Reactivity** No decomposition if used and stored according to specifications.

**Chemical stability** Resistant to inert materials only.

**Suitable materials:** Stainless steel (DIN 1.4571), PVC, polyethylene, glass-lined apparatus. Thermal decomposition with temperatures above 50 °C (SADT)

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

### Possibility of hazardous reactions

Thermal decomposition or direct contact with numerous additives, such as reducing agents (i.e. amine accelerator), heavy metal compounds (in particular cobalt accelerators), acids and alkaline solutions, may lead to hazardous, auto accelerating decomposition reactions, and possibly, to explosion or fire.

### Conditions to avoid

Avoid naked flames, sparks, other ignition sources and sunlight. Protect from heat.  
>25 °C

To avoid thermal decomposition do not overheat.

### Incompatible materials:

Keep apart from dirt, rust, chemicals, especially reducing substances, acids, alkaline solutions, amines and heavy metal compounds such as accelerator, dessicative, metal soaps)

Avoid any direct contact with accelerators.

### Hazardous decomposition products:

Formation of various organic degradation products and inflammable and explosive vapours/gases upon decomposition.

Danger of forming toxic pyrolysis products.

## 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

<i>· LD/LC50 values relevant for classification:</i>		
<b>94-36-0 dibenzoyl peroxide</b>		
Oral	LD 50	>5000 mg/kg (rat)
Inhalative	LC50 /4h	> 24300 mg/m <sup>3</sup> (rat) (Dust)
<b>105-76-0 dibutyl maleate</b>		
Oral	LD50	3730 mg/kg (rat)
Dermal	LD50	10000 mg/kg (rabbit)
Inhalative	LC 50 / 4h	> 5 mg/l (rat)

### Primary irritant effect:

**on the skin:** Repeated exposure may cause skin dryness or cracking.

**on the eye:** Irritating effect.

<i>· Subacute to chronic toxicity:</i>		
<b>94-36-0 dibenzoyl peroxide</b>		
Oral	NOAEL	500 mg/kg (-) (per day, 29d)

**Additional toxicological information:** No further relevant information available.

**Sensitisation** May cause sensitisation by skin contact.

**CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** No further relevant information available.

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

**12. ECOLOGICAL INFORMATION**

**Toxicity**

<i>Aquatic toxicity:</i>	
<b>94-36-0 dibenzoyl peroxide</b>	
EC50	35 mg/l (activated slugde)
EC50/48h	0.11 mg/l (daphnia magna)
EC50/72h	0.06 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	0.06 mg/l (oncorhynchus mykiss)
<b>105-76-0 dibutyl maleate</b>	
EC10	1003 mg/l (pseudomonas putida) (6h)
EC50/48h	21.0 mg/l (daphnia magna)
EC50/72h	6.2 mg/l (scenedesmus subspicatus)
LC50	1.2 mg/l (oncorhynchus mykiss) (48h)
<b>Persistence and degradability</b>	
<b>105-76-0 dibutyl maleate</b>	
Biodegradation	95 % (activated slugde) (19 days)
<b>Bioaccumulative potential</b>	
<b>94-36-0 dibenzoyl peroxide</b>	
BCF	66.6 (-)
log Pow	3.2 (-) (OECD 117)
<b>105-76-0 dibutyl maleate</b>	
log Pow	3.38 (-)

**Behaviour in environmental systems**

<b>Mobility in soil</b>	
<b>94-36-0 dibenzoyl peroxide</b>	
Koc	3.8 (-) (22 °C)

**Additional ecological information:**

**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**Other adverse effects** No further relevant information available.

**13. DISPOSAL CONSIDERATION**

**Waste treatment methods**

**Recommendation**

Must not be disposed together with household waste. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

Dilute product with suitable inert liquid to a peroxide concentration below 10% and subsequently dispose of according to the refuse disposal act.



NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729 FAX: 01189 791927  
sales@norsekem.co.uk www.norsekem.co.uk

**Waste disposal key:**

The waste codes given above are to be considered recommendations; because of regional and industrial sector specific features, application of different waste codes is possible.

<i>· European waste catalogue</i>	
16 05 06*	<i>laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals</i>

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**14. TRANSPORT INFORMATION**

**UN-Number**

ADR, IMDG, IATA 3108

**UN proper shipping name**

ADR 3108 ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), ENVIRONMENTALLY HAZARDOUS

IMDG, IATA ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl Peroxide)

**Transport hazard class(es)**

ADR



Class 5.2 Organic peroxides.

Label 5.2

**IMDG, IATA**



Class 5.2 Organic peroxides.

Label 5.2

**Packing group**

ADR, IMDG, IATA Void

**Environmental hazards:**

**Special marking (ADR):** Symbol (fish and tree)

**Special precautions for user** Warning: Organic peroxides.

**EMS Number:** F-J,S-R

**Transport in bulk according to**

**Annx II of MARPOL73/78 and the IBC Code** Not applicable.

**Transport/additional information**

ADR

**Tunnel restriction code** D

NORSEKEM LIMITED, UNIT 6c, STOKES FARM,  
BINFIELD ROAD, WOKINGHAM, BERKS, RG40 5PR  
TEL: 01189 899729      FAX: 01189 791927  
sales@norsekem.co.uk      www.norsekem.co.uk

## 15. REGULATORY INFORMATION

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

**National regulations:**

**Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

**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.

**Relevant phrases**

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H373	May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
H400	Very toxic to aquatic life.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

July 2015