

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name

**Benzoyl peroxide, wet with 25% water**

Stock number:

L13174

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

Identified use:

SU24 Scientific research and development

**1.3 Details of the supplier of the safety data sheet**

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG  
A Johnson Matthey Company  
Zeppelinstr. 7b  
76185 Karlsruhe / Germany  
Tel: +49 (0) 721 84007 280  
Fax: +49 (0) 721 84007 300  
Email: tech@alfa.com  
www.alfa.com

Informing department:

Product safety Tel + +049 (0) 7275 988687-0

**1.4 Emergency telephone number:**

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Org. Perox. CD H242 Heating may cause a fire.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

 Xi; Irritant

R36: Irritating to eyes.

 Xi; Sensitising

R43: May cause sensitisation by skin contact.

 E; Explosive

R1: Explosive when dry.

 O; Oxidising

R7: May cause fire.

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Other hazards that do not result in classification**

No information known.

**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

The product is classified and labelled according to the CLP regulation.

GHS02, GHS07

Danger

Hazard-determining components of labelling:

Hazard statements

Benzoyl peroxide

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

P210

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P410 Protect from sunlight.

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

**2.3 Other hazards**

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Dangerous components:**

CAS: 94-36-0

Benzoyl peroxide

EINECS: 202-327-6

 Xi R36;  Xi R43;  E R3;  O R7  Org. Perox. B, H241;  Eye Irrit. 2, H319; Skin Sens. 1, H317

75,0%

**Additional information**

None known.

**Non-Hazardous Ingredients**

CAS: 7732-18-5

Water

EINECS: 231-791-2

25,0%

**SECTION 4: First aid measures****4.1 Description of first aid measures**

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek medical treatment.

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

No further relevant information available.

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**4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**  
**Suitable extinguishing agents** CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**5.2 Special hazards arising from the substance or mixture** If this product is involved in a fire, the following can be released:  
Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters**  
**Protective equipment:** Wear self-contained breathing apparatus.  
Wear full protective suit.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

**6.2 Environmental precautions:** Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach sewage system or water bodies.  
Do not allow to enter the ground/soil.

**6.3 Methods and material for containment and cleaning up:** Collect mechanically.  
**Prevention of secondary hazards:** No special measures required.  
**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 information on disposal.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling** Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:** No information known.

**7.2 Conditions for safe storage, including any incompatibilities**  
**Storage**  
**Requirements to be met by storerooms and containers:** No special requirements.  
**Information about storage in one common storage facility:** Do not store with organic materials.  
Store away from metal powders.

**Further information about storage conditions:** Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
No further relevant information available.

**7.3 Specific end use(s)**

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

**Additional information about design of technical systems:** Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**8.1 Control parameters****Components with critical values that require monitoring at the workplace:****94-36-0 Benzoyl peroxide (75,0%)**

AGW (Germany)	5 E mg/m <sup>3</sup> 1 (I);DFG
PEL (USA)	5 mg/m <sup>3</sup>
REL (USA)	5 mg/m <sup>3</sup>
TLV (USA)	5 mg/m <sup>3</sup>

**Additional information:** No data**8.2 Exposure controls**

**Personal protective equipment**  
**General protective and hygienic measures** The usual precautionary measures should be adhered to in handling the chemicals.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.  
Maintain an ergonomically appropriate working environment.

**Breathing equipment:** Use breathing protection with high concentrations.

**Protection of hands:** Check protective gloves prior to each use for their proper condition.  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
Impervious gloves

**Material of gloves** Not determined  
**Penetration time of glove material** Not determined

**Eye protection:** Safety glasses  
Face protection

**Body protection:** Protective work clothing.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

**General Information**  
**Appearance:**

<b>Form:</b>	Powder
<b>Colour:</b>	White
<b>Smell:</b>	Not determined
<b>Odour threshold:</b>	Not determined.

**pH-value:** Not applicable.

**Change in condition**  
**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** Not determined

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<b>Sublimation temperature / start:</b>	Not determined
<b>Inflammability (solid, gaseous)</b>	May cause fire.
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Self-inflammability:</b>	Product is not selfigniting.

<b>Danger of explosion:</b>	Explosive when dry.
<b>Critical values for explosion:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Steam pressure at 20 °C:</b>	23 hPa
<b>Density</b>	Not determined
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not applicable.
<b>kinematic:</b>	Not applicable.

<b>Solvent content:</b>	
<b>Organic solvents:</b>	0,0 %

<b>Solids content:</b>	75,0 %
<b>9.2 Other information</b>	No further relevant information available.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	Explosive when dry. Explosive when dry. May cause fire.
<b>10.2 Chemical stability</b>	Stable under recommended storage conditions.
<b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
<b>10.3 Possibility of hazardous reactions</b>	No dangerous reactions known
<b>10.5 Incompatible materials:</b>	Organic materials Metal powders
<b>10.6 Hazardous decomposition products:</b>	Carbon monoxide and carbon dioxide

**SECTION 11: Toxicological information**

<b>11.1 Information on toxicological effects</b>	
<b>Acute toxicity:</b>	The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
<b>LD/LC50 values that are relevant for classification:</b>	No data
<b>Skin irritation or corrosion:</b>	May cause irritation
<b>Eye irritation or corrosion:</b>	Causes serious eye irritation.
<b>Sensitization:</b>	May cause an allergic skin reaction.
<b>Germ cell mutagenicity:</b>	The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.
<b>Carcinogenicity:</b>	IARC-3: Not classifiable as to carcinogenicity to humans. ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this product.
<b>Reproductive toxicity:</b>	The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.
<b>Specific target organ system toxicity - repeated exposure:</b>	No effects known.
<b>Specific target organ system toxicity - single exposure:</b>	No effects known.
<b>Aspiration hazard:</b>	No effects known.
<b>Additional toxicological information:</b>	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version: Irritant

**SECTION 12: Ecological information**

<b>12.1 Toxicity</b>	
<b>Aquatic toxicity:</b>	No further relevant information available.
<b>12.2 Persistence and degradability</b>	No further relevant information available.
<b>12.3 Bioaccumulative potential</b>	No further relevant information available.
<b>12.4 Mobility in soil</b>	No further relevant information available.
<b>Additional ecological information:</b>	
<b>General notes:</b>	Do not allow material to be released to the environment without proper governmental permits. Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>PBT:</b>	Not applicable.
<b>vPvB:</b>	Not applicable.
<b>12.6 Other adverse effects</b>	No further relevant information available.

**SECTION 13: Disposal considerations**

<b>13.1 Waste treatment methods</b>	
<b>Recommendation</b>	Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
<b>Uncleaned packagings:</b>	
<b>Recommendation:</b>	Disposal must be made according to official regulations.

**Safety data sheet**  
according to 1907/2006/EC, Article 31



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**SECTION 14: Transport information**

<b>UN-Number ADR, IMDG, IATA</b>	UN3104
<b>14.2 UN proper shipping name ADR IMDG, IATA</b>	3104 ORGANIC PEROXIDE TYPE C, SOLID ORGANIC PEROXIDE TYPE C, SOLID
<b>14.3 Transport hazard class(es) ADR</b>	
	
<b>Class Label IMDG, IATA</b>	5.2 (P1) Organic peroxides. 5.2
	
<b>Class Label</b>	5.2 Organic peroxides. 5.2
<b>Packing group ADR, IMDG, IATA</b>	Not applicable
<b>14.5 Environmental hazards: Marine pollutant:</b>	No
<b>14.6 Special precautions for user Kemler Number:</b>	Warning: Organic peroxides. -
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR Excepted quantities (EQ): Limited quantities (LQ) Transport category Tunnel restriction code</b>	E0 100 g 1 D
<b>UN "Model Regulation":</b>	UN3104, ORGANIC PEROXIDE TYPE C, SOLID, 5.2

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Australian Inventory of Chemical Substances**

All ingredients are listed.

**Standard for the Uniform Scheduling of Drugs and Poisons**

94-36-0 Benzoyl peroxide

S2, S4, S5

**National regulations****Information about limitation of use:**Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.**Classification according to VbF:**

Not applicable

**Water hazard class:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

**Other regulations, limitations and prohibitive regulations****ELINCS (European List of Notified Chemical Substances)**

None of the ingredients is listed.

**Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

**REACH - Pre-registered substances**

All ingredients are listed.

**15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Relevant phrases**

H241 Heating may cause a fire or explosion.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.  
R36 Irritating to eyes.  
R43 May cause sensitisation by skin contact.  
R7 May cause fire.

**Department issuing data specification sheet:**

Health, Safety and Environmental Department.

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organization  
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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

DE/E