

Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 06.01.2022

Version number 1

Revision Date 06.01.2022

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

- **1.1 Product identifier** JB-4 Catalyst
- **Trade name:** **JB-4 Catalyst**
- **Article number:** AGR1130C
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:**
Catalyst used in making resins for use in microscopy.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**
Agar Scientific Ltd
Parsonage Lane
Stansted CM24 8GF
United Kingdom
sales@agarscientific.com
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

SECTION 2: Hazards identification

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



exploding bomb

Unst. Expl.	H200	Unstable explosives.
Self-react. A	H240	Heating may cause an explosion.
Org. Perox. A	H240	Heating may cause an explosion.



health hazard

Repr. 1B	H360D	May damage the unborn child.
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Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS01 GHS07 GHS08

- **Signal word** Danger

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Hazard-determining components of labelling:

 dicyclohexyl phthalate
 dibenzoyl peroxide

Hazard statements

 H200 Unstable explosives.
 H240 Heating may cause an explosion.
 H240 Heating may cause an explosion.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H360D May damage the unborn child.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

 P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read carefully and follow all instructions.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
 P401 Store in accordance with local/regional/national/international regulations.
 P405 Store locked up.
 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 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 84-61-7	dicyclohexyl phthalate	50.0%
EINECS: 201-545-9	☠ Repr. 1B, H360D; ⚠ Skin Sens. 1, H317	
CAS: 94-36-0	dibenzoyl peroxide	50.0%
EINECS: 202-327-6	☠ ☠ Org. Perox. B, H241; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317	

SVHC

84-61-7	dicyclohexyl phthalate
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Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Immediately remove any clothing soiled by the product.

After inhalation:

 Supply fresh air.
 No adverse effects are anticipated from inhalation.

After skin contact: Wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

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- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Remove persons from danger area.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
The dried resin is combustible, similar to wood. Burning dry resin emits dense, black smoke. As latex, material is not combustible.
Protect against electrostatic charges.
Prevent impact and friction.
Extinguishing media: Water fog - dried resin only.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

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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:**

84-61-7 dicyclohexyl phthalate

WEL	Long-term value: 5 mg/m ³
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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Store protective clothing separately.
 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.
 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**
 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Granulate
Colour:	White
- **Odour:** Characteristic
- **Odour threshold:** Not determined.

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· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· Flash point:	180 °C
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Not determined.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	1 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (EC)	0.00 %
Solids content:	0.0 %
· 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**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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:

94-36-0 dibenzoyl peroxide

Oral	LD50	2,000 mg/kg (mouse)
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Inhalative	LC50/4 h	24.3 mg/l (rat)
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- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **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** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
May damage the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

94-36-0 dibenzoyl peroxide

EC50	2.91 mg/kg (Daphnia magna) ((48h))
ERC50	0.0711 mg/l (green algae)
LC50	0.06 mg/l (Oncorhynchus mykiss (rainbow trout))

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN3106 3106
· 14.2 UN proper shipping name · ADR · IMDG · IATA	Organic Peroxide type D, Solid. 3106 ORGANIC PEROXIDE TYPE D, SOLID ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT ORGANIC PEROXIDE TYPE D, SOLID
· 14.3 Transport hazard class(es) · ADR 	5.2 Organic peroxides. 5.2
· IMDG 	5.2 Organic peroxides. 5.2 Organic peroxides 5.2
· IATA 	5.2 Organic peroxides. 5.2 Organic peroxides 5.2
· 14.4 Packing group · ADR · IMDG, IATA	II II II
· 14.5 Environmental hazards: · Marine pollutant:	No Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category · Stowage Code · Segregation Code	Warning: Organic peroxides. 539 F-J,S-R D SW1 Protected from sources of heat. SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis. SG72 See 7.2.6.3.2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

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· Transport/Additional information:	
· ADR	
· Transport category	2
· Tunnel restriction code	D
· UN "Model Regulation":	
	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2, II

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category** P1a EXPLOSIVES

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 10 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50 t

· **National regulations:**

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

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

84-61-7	dicyclohexyl phthalate
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· **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 and should assist the user with the safe handling of this material when properly applied. 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.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

· **Department issuing SDS:** Sales department

· **Contact:**

sales@agarscientific.com

Tel: +44 (0) 1279 813 519

· **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

ELINCS: European List of Notified Chemical Substances

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

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Unst. Expl.: Explosives – Unstable explosive

Self-react. A: Self-reactive substances and mixtures – Type A

Org. Perox. A: Organic peroxides – Type A

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Org. Perox. B: Organic peroxides – Type B

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1B: Reproductive toxicity – Category 1B

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**

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