

# Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company  
Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,  
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)  
Tel : + 91 98200 41841 Email : [info@ottokemi.com](mailto:info@ottokemi.com) Web : [www.ottokemi.com](http://www.ottokemi.com)

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## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Product identifiers

Product Name : S-BINAP, 97%  
Product Code : B 1806  
CAS No: 76189-56-5

1.2. Relevant identified uses of the substance or mixture and uses advised against  
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet  
Company identification  
OTTO CHEMIE PVT LTD  
No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,  
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number  
Phone no. : + 91 98200 41841 (10 : 00 am – 06 : 00 pm)

### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture  
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008  
2.2 Label elements  
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008  
2.3 Other hazards - none

### SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: (S)-(-)-BINAP (S)-(-)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene (S)-(-)-(1,1'-Binaphthalene-2,2'-diyl)bis(diphenylphosphine) (S)-(-)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl
Formula	: C44H32P2
Molecular weight	: 622,67 g/mol
CAS-No.	: 76189-56-5

No components need to be disclosed according to the applicable regulations.

### SECTION 4: First aid measures

4.1 Description of first-aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

- 5.1 Extinguishing media  
Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 5.2 Special hazards arising from the substance or mixture  
Carbon oxides  
Oxides of phosphorus
- 5.3 Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information  
No data available

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures  
Avoid dust formation. Avoid breathing vapors, mist or gas.  
For personal protection see section 8.
- 6.2 Environmental precautions  
Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up  
Sweep up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections  
For disposal see section 13.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
Advice on protection against fire and explosion  
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.  
Hygiene measures  
General industrial hygiene practice.  
For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities  
Storage conditions  
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Handle under nitrogen, protect from moisture. Store under nitrogen. Air and moisture sensitive.
- Storage class  
Storage class (TRGS 510): 13: Non Combustible Solids
- 7.3 Specific end use(s)  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters  
Ingredients with workplace control parameters
- 8.2 Exposure controls  
Personal protective equipment  
Eye/face protection  
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Skin protection  
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.  
Full contact  
Material: Nitrile rubber  
Minimum layer thickness: 0,11 mm  
Break through time: 480 min  
Splash contact

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Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail

sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state

crystalline

b) Color

beige

c) Odor

No data available

d) Melting

Melting point/range: 238 - 240 °C

point/freezing point

e) Initial boiling point

and boiling range

f) Flammability (solid,

No data available

gas)

g) Upper/lower

No data available

flammability or

explosive limits

h) Flash point

No data available

i) Autoignition

No data available

temperature

j) Decomposition

No data available

temperature

k) pH

No data available

l) Viscosity

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

m) Water solubility

No data available

n) Partition coefficient

No data available=:

n-octanol/water

o) Vapor pressure

No data available

p) Density

No data available

Relative density

No data available

q) Relative vapor

No data available

density

r) Particle

No data available

characteristics

s) Explosive properties

No data available

t) Oxidizing properties

No data available

9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

- 10.1 Reactivity  
No data available
- 10.2 Chemical stability  
Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions  
No data available
- 10.4 Conditions to avoid  
No data available
- 10.5 Incompatible materials  
Strong oxidizing agents
- 10.6 Hazardous decomposition products  
In the event of fire: see section 5

## SECTION 11: Toxicological information

- 11.1 Information on toxicological effects  
Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:  
Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg  
Inhalation LC50 Rat: > 50mg/L.  
Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.  
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).  
Special Remarks on Toxicity  
to Animals: Not available.  
Special Remarks on Chronic Effects on Humans: Not available.  
Special Remarks on other Toxic Effects on Humans: Not available.

## SECTION 12: Ecological information

- 12.1 Toxicity  
No data available
- 12.2 Persistence and degradability  
No data available
- 12.3 Bioaccumulative potential  
No data available
- 12.4 Mobility in soil  
No data available
- 12.5 Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Endocrine disrupting properties  
No data available
- 12.7 Other adverse effects  
No data available

## SECTION 13: Disposal considerations

- 13.1 Waste treatment methods  
Product  
Offer surplus and non-recyclable solutions to a licensed disposal company.  
Contaminated packaging  
Dispose of as unused product.

## SECTION 14: Transport information

- 14.1 UN number  
ADR/RID: - IMDG: - IATA: -
- 14.2 UN proper shipping name  
ADR/RID: Not dangerous goods  
IMDG: Not dangerous goods  
IATA: Not dangerous goods
- 14.3 Transport hazard class(es)  
ADR/RID: - IMDG: - IATA: -
- 14.4 Packaging group  
ADR/RID: - IMDG: - IATA: -

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14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

## SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors

:

Restrictions on the marketing and use of certain dangerous substances

:

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

:

Candidate List of Substances of Very High Concern for Authorisation

:

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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