

# OTTO CHEMIE PVT LTD

An ISO 9001 : 2015 & GMP Certified Company  
101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate,  
Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841  
Email : [info@ottokemi.com](mailto:info@ottokemi.com) Web : [www.ottokemi.com](http://www.ottokemi.com)

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1. Product identifiers

Product name: 4-Hydroxybiphenyl, 98%  
Product Code: H 1595  
CAS No : 92-69-3

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  
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Chinchpada, Vasai East, Waliv, Maharashtra 401208.  
Email [info@ottokemi.com](mailto:info@ottokemi.com)

1.4. Emergency telephone number

Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin irritation, (Category 2)

Skin sensitization, (Sub-category  
1B)

hazard, (Category 2)

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H411: Toxic to aquatic life with long lasting  
effects.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal Word

Hazard Statements

H315

H317

H411

Precautionary Statements

P261

P264

P272

Warning

Causes skin irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Avoid breathing dust.

Wash skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the  
workplace.

Avoid release to the environment.

Wear protective gloves.

IF ON SKIN: Wash with plenty of water.

none

P273

P280

P302 + P352

Supplemental Hazard

Statements

Reduced Labeling (<= 125 ml)

Pictogram

Signal Word

Hazard Statements

H317

Precautionary Statements

P261

P272

Warning

May cause an allergic skin reaction.

Avoid breathing dust.

Contaminated work clothing should not be allowed out of the  
workplace.

Wear protective gloves.

IF ON SKIN: Wash with plenty of water.

none

P280

P302 + P352

Supplemental Hazard

Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent,  
bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at

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levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : 4-Hydroxybiphenyl  
Formula : C<sub>12</sub>H<sub>10</sub>O  
Molecular weight : 170,21 g/mol  
CAS-No. : 92-69-3  
EC-No. : 202-179-2

Component	Classification	Concentration
biphenyl-4-ol		
CAS-No. 92-69-3 EC-No. 202-179-2	Skin Irrit. 2; Skin Sens. 1B; Aquatic Chronic 2; H315, H317, H411	<= 100 %

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

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 5.4 Further information

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Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Storage class

Storage class (TRGS 510): 11: 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). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Body Protection

protective clothing

Respiratory protection

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required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

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	flakes
b) Color	white
c) Odor	No data available
d) Melting point/freezing point	Melting point/range: 164 - 166 °C - lit.
e) Initial boiling point and boiling range	321 °C - lit.
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	160 °C - closed cup
i) Autoignition temperature	167 °C
j) Decomposition temperature	- Regulation (EC) No. 440/2008, Annex, A.16
k) pH	No data available
l) Viscosity	No data available
m) Water solubility	Viscosity, kinematic: No data available
n) Partition coefficient: n-octanol/water	Viscosity, dynamic: No data available
o) Vapor pressure	0,048 g/l - OECD Test Guideline 105- slightly soluble
p) Density	log Pow: ca.3,6 at 25 °C - OECD Test Guideline 107 -
Relative density	Bioaccumulation is not expected.
q) Relative vapor density	ca.26.000 hPa at ca.25 °C - OECD Test Guideline 104
r) Particle characteristics	1,28 g/cm <sup>3</sup> at 20 °C - OECD Test Guideline 109
s) Explosive properties	No data available
t) Oxidizing properties	No data available
9.2 Other safety information	No data available
Surface tension	No data available
Dissociation constant	No data available
	none
	62,4 mN/m at 20 °C
	- OECD Test Guideline 115
	ca.9,5 at 20 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

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Strong oxidizing agents  
Strong bases  
10.4 Conditions to avoid  
Strong heating.  
10.5 Incompatible materials  
No data available  
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

Toxicity to fish static test LC50 - *Oryzias latipes* (Orange-red killifish) - 4,27 mg/l - 48 h

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 3,66 mg/l - 48 h

Remarks: (ECOTOX Database)

Toxicity to algae EC50 - *Pseudokirchneriella subcapitata* - 2,8 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria - activated sludge - 149 mg/l - 3 h

Remarks: (ECHA)

### 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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

Discharge into the environment must be avoided.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

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## **SECTION 14: Transport information**

14.1 UN number		
ADR/RID: 3077	IMDG: 3077	IATA: 3077
14.2 UN proper shipping name		
ADR/RID :	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (biphenyl-4-ol)	
IMDG :	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (biphenyl-4-ol)	
IATA :	Environmentally hazardous substance, solid, n.o.s. (biphenyl-4-ol)	
14.3 Transport hazard class(es)		
ADR/RID: 9	IMDG: 9	IATA: 9
14.4 Packaging group		
ADR/RID: III	IMDG: III	IATA: III
14.5 Environmental hazards		
ADR/RID: yes	IMDG Marine pollutant: yes	IATA: yes
14.6 Special precautions for user		
Tunnel restriction code :	(-)	

### **Further information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

## **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.

### **National legislation**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

**E2 ENVIRONMENTAL HAZARDS**

### **Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

### **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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