

## Chemical Safety Data Sheet MSDS / SDS

## OCTOXYNOL 9

Revision Date:2023-04-08 Revision Number:1

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

**Product identifier**

Product name : OCTOXYNOL 9  
CBnumber : CB0282743  
CAS : 68412-54-4  
Synonyms : OCTOXYNOL 9,4-nonylphenol-ethoxylate (penta-) (technical) (branched)

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

## SECTION 2: Hazards identification

**GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Danger

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

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**Hazard statements**

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

H319 Causes serious eye irritation

H411 Toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

## SECTION 3: Composition/information on ingredients

### Substance

Product name	: OCTOXYNOL 9
Synonyms	: OCTOXYNOL 9,4-nonylphenol-ethoxylate (penta-) (technical) (branched)
CAS	: 68412-54-4
MF	: C34H63O11X
MW	: 647.86

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## SECTION 4: First aid measures

### Description of first aid measures

#### General advice

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

#### If inhaled

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

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### 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. Consult a physician.

### 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

### Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

Carbon oxides Combustible.

### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### Further information

No data available

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## SECTION 6: Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **Methods and materials for containment and cleaning up**

Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

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## SECTION 7: Handling and storage

### **Precautions for safe handling**

For precautions see section 2.2.

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

### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

### **Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### **control parameter**

### **Hazard composition and occupational exposure limits**

Does not contain substances with occupational exposure limits.

### **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.

#### Body Protection

Impervious clothing, 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 not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Appearance	Form: clear, viscous liquid Color: colorless
Odour	No data available
Odour Threshold	No data available d) pH 6,0 - 8,0 at 100 g/l at 25 °C Melting point/freezing point Initial boiling point and boiling range Melting point/range: 46 - 47 °C - lit. 354,34 °C at 1.013,25 hPa - OECD Test Guideline 103 Flash point 193,5 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9 Evaporation rate No data available Flammability (solid, gas) Upper/lower flammability or explosive limits No data available No data available Vapour pressure 0,001 hPa at 25 °C - OECD Test Guideline 104 Vapour density No data available Density 0,960 g/cm <sup>3</sup> Relative density 0,99 at 20 °C - OECD Test Guideline 109 Water solubility 0,00455 g/l at 20 °C - slightly soluble Partition coefficient: n-octanol/water Autoignition temperature Decomposition temperature - Not applicable 410 °C at 1.019 hPa No data available Viscosity Viscosity, kinematic: 692,55 mm <sup>2</sup> /s at 20 °C - OECD Test Guideline 114 Viscosity, dynamic: No data available Explosive properties No data available Oxidizing properties No data available
Melting point/freezing point	Melting point/range: 46 - 47 °C - lit.
Initial boiling point and boiling range	354,34 °C at 1.013,25 hPa - OECD Test Guideline 103
Flash point	193,5 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9
Evaporation rate	>230 °F
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	0,001 hPa at 25 °C - OECD Test Guideline 104
Vapour density	No data available
Relative density	0,960 g/cm <sup>3</sup> 0,99 at 20 °C - OECD Test Guideline 109
Water solubility	0,00455 g/l at 20 °C - slightly soluble
Partition coefficient: n-octanol/water	- Not applicable
Autoignition temperature	410 °C at 1.019 hPa

Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 692,55 mm <sup>2</sup> /s at 20 °C - OECD Test Guideline 114 118,65 mm <sup>2</sup> /s at 40 °C - OECD Test Guideline 114 Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

### Other safety information

Surface tension < 55,92 mN/m at 0,003g/l at 20 °C

- OECD Test Guideline 115

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## SECTION 10: Stability and reactivity

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

Heat. Heat, flames and sparks.

### Incompatible materials

Strong oxidizing agents, Strong reducing agents

### Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - > 2.000 mg/kg Remarks: (ECHA)

Inhalation

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h Remarks: (ECHA)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 24 h (OECD Test Guideline 405)

#### Respiratory or skin sensitization

(OECD Test Guideline 406)

#### **Germ cell mutagenicity**

In vivo tests did not show mutagenic effects Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: Not mutagenic in Ames Test.

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

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## SECTION 12: Ecological information

### **Toxicity**

#### **Toxicity to fish**

flow-through test LC50 - Pimephales promelas (fathead minnow) - 0,21 mg/l - 96 h

(US-EPA)

Remarks: (in analogy to similar products)

#### **Toxicity to daphnia and other aquatic invertebrates**

EC50 - Daphnia magna (Water flea) - 0,148 mg/l - 48 h (ISO 6341)

Remarks: (in analogy to similar products)

#### **Toxicity to algae**

static test ErC50 - Pseudokirchneriella subcapitata - > 3 mg/l - 72 h (OECD Test Guideline 201)

### **Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d

Result: 74,8 % - Readily biodegradable. (OECD Test Guideline 301B)

Remarks: The 10 day time window criterion is not fulfilled.

### **Bioaccumulative potential**

Does not significantly accumulate in organisms.

### **Mobility in soil**

No data available

### **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.

### **Other adverse effects**

Very toxic to aquatic life with long lasting effects.

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## SECTION 13: Disposal considerations

### **Waste treatment methods**

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

#### **Contaminated packaging**

Dispose of as unused product.

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## SECTION 14: Transport information

### **UN number**

ADR/RID: 3082 IMDG: 3082 IATA: 3082

### **UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenoxy poly(ethyleneoxy)ethanol, branched)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenoxy poly(ethyleneoxy)ethanol, branched)

IATA: Environmentally hazardous substance, liquid, n.o.s. (Nonylphenoxy poly(ethyleneoxy)ethanol, branched)

### **Transport hazard class(es)**

ADR/RID: 9 IMDG: 9 IATA: 9

### **Packaging group**

ADR/RID: III IMDG: III IATA: III

## Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

## Special precautions for user

## Further information

Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

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# SECTION 15: Regulatory information

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

### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: <https://www.mem.gov.cn/>

### Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: <https://www.mee.gov.cn/>

EC Inventory:Listed.

Korea Existing Chemicals List (KECL):Listed. website: <http://ncis.nier.go.kr>

New Zealand Inventory of Chemicals (NZIoC):Listed. website: <https://www.epa.govt.nz/>

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: <https://emb.gov.ph/>

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: <https://www.epa.gov/>

Vietnam National Chemical Inventory:Listed. website: <https://chemicaldata.gov.vn/>

European Inventory of Existing Commercial Chemical Substances (EINECS):Not Listed. website: <https://echa.europa.eu/>

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# SECTION 16: Other information

## Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

## References

**[1]** CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

**[2]** ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

**[3]** ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**[4]** eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:



[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

【5】 ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

【6】 Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

【7】 HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

【8】 IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

【9】 IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

【10】 Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

**Disclaimer:**

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