# **REACH Substance Declaration**

The attached data sheet is provided in accordance with the substance(s) advised as being present in the "article" listed.

In accordance with the REACH regulations, this "safety information" is provided as a service to our customers and is as complete as we are able to determine as part of our continual updating of product information provided by our suppliers.

It should be noted that the information will refer to the substance in its pure (liquid chemical) form prior to incorporation into the product, and unless stated is not for intentional release as part of its primary function. To the best of our knowledge and belief this product does not present any hazard to customers by handling or inclusion into larger assemblies or upon eventual disposal unless specifically advised.

The details presented are in accordance with our present knowledge and experiences. They are not contractual assurances of product attributes.

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

## 1.1 Product identifiers

Product name : 4-tert-Octylphenol

Product Number: 290823

Brand: Aldrich

Index-No. : 604-075-00-6 CAS-No. : 140-66-9

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

Identified uses: Laboratory chemicals, Manufacture of substances

#### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

# Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2)

Serious eye damage (Category 1)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

#### Classification according to EU Directives 67/548/EEC or 1999/45/EC

Harmful in contact with skin. Irritating to skin. Limited evidence of a carcinogenic effect. Risk of serious damage to eyes. Possible risk of impaired fertility. Possible risk of irreversible effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 2.2 Label elements

# Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram

Signal word Danger

Hazard statement(s)

H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Avoid release to the environment.

Wear protective gloves/ eye protection/ face protection.

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

Dispose of contents/ container to an approved waste disposal plant.

# **Supplemental Hazard**

Statements - none

#### According to European Directive 67/548/EEC as amended.

#### Hazard symbol(s) R-phrase(s)

R21 Harmful in contact with skin.

R38 Irritating to skin.

R40 Limited evidence of a carcinogenic effect.

R41 Risk of serious damage to eyes.

R62 Possible risk of impaired fertility.

R68 Possible risk of irreversible effects.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

## 2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1 Substances

Synonyms: 4-(1,1,3,3-Tetramethylbutyl)phenol

Formula: C14H22O

Molecular Weight: 206.32 g/mol Component Concentration

# 4-(1,1,3,3-Tetramethylbutyl)phenol Included in the Candidate List of Substances of Very High Concern (SVHC)

according to Regulation (EC) No. 1907/2006 (REACH)

CAS-No.140-66-9 EC-No. 205-426-2 Index-No. 604-075-00-6

#### 4. FIRST AID MEASURES

# 4.1 Description of first aid measures

#### **General advice**

Consult a physician. Show this 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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Aldrich - 290823 Page 3 of 7

#### If swallowed

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

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### 4.3 Indication of any immediate medical attention and special treatment needed -no data available

#### 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

#### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### 5.4 Further information -no data available

#### 6. ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### 6.2 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.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For disposal see section 13.

#### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

# 7.3 Specific end uses - no data available

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# 8.1 Control parameters

# Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

a) Appearance Form: solid

Colour: white

- b) Odour no data available
- c) Odour Threshold no data available
- d) pH 6.0 at 10 g/l at 20 °C
- e) Melting point/freezing point

Melting point/range: 79 - 82 °C - lit.

- f) Initial boiling point and boiling range 175 °C at 40 hPa lit.
- g) Flash point 145 °C
- h) Evaporation rate no data available
- i) Flammability (solid, gas) no data available
- j) Upper/lower flammability or explosive limits no data available
- k) Vapour pressure 10.7 hPa at 150 °C
- I) Vapour density no data available
- m) Relative density 0.912 g/cm3 at 87 °C
- n) Water solubility no data available
- o) Partition coefficient: noctanol/ water log Pow: 3.7
- p) Autoignition temperature no data available
- q) Decomposition temperature no data available
- r) Viscosity no data available
- s) Explosive properties no data available
- t) Oxidizing properties no data available

#### 9.2 Other safety information - no data available

# 10. STABILITY AND REACTIVITY

- 10.1 Reactivity no data available
- 10.2 Chemical stability no data available
- 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

Other decomposition products - no data available

#### 11. TOXICOLOGICAL INFORMATION

# 11.1 Information on toxicological effects

# **Acute toxicity**

LD50 Oral - rat - 4,600 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:

Other changes. Liver:

Other changes. LD50 Oral - mouse - 3,210 mg/kg

Remarks: Behavioral:Change in motor activity (specific assay). Lungs, Thorax, or Respiration:Other

changes. Liver:Other changes. LD50 Dermal - rabbit - 1,880 mg/kg

#### Skin corrosion/irritation

Skin - rabbit - Irritating to skin. - 24 h

#### Serious eye damage/eye irritation

Eyes - rabbit - Risk of serious damage to eyes. - 24 h

#### Respiratory or skin sensitization - no data available

#### Germ cell mutagenicity - no data available

#### Carcinogenicity

Carcinogenicity - mouse - Skin

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.

Suspected human carcinogens

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity

Suspected human reproductive toxicant

Reproductive toxicity - mouse - Oral

Effects on Newborn: Delayed effects.

Reproductive toxicity - rat - male

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Paternal Effects: Testes, epididymis, sperm duct.

Suspected human reproductive toxicant

Developmental Toxicity - mouse - Oral

Specific Developmental Abnormalities: Urogenital system.

Developmental Toxicity - rat - Oral

Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - rat - female - Subcutaneous

Specific Developmental Abnormalities: Endocrine system. Specific Developmental Abnormalities:

Urogenital system.

## Specific target organ toxicity - single exposure - no data available

Specific target organ toxicity - repeated exposure - no data available

Aspiration hazard - no data available

## Potential health effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion May be harmful if swallowed.

**Skin** Harmful if absorbed through skin. Causes skin irritation.

Eyes Causes eye burns.

## Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **Additional Information**

RTECS: SM9625000

#### 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 0.25 mg/l - 96 h static test LC50 - Leuciscus idus (Golden orfe) - 2.2 mg/l - 96 h

#### 12.2 Persistence and degradability

#### 12.3 Bioaccumulative potential - no data available

#### 12.4 Mobility in soil - no data available

#### 12.5 Results of PBT and vPvB assessment - no data available

#### 12.6 Other adverse effects

Very toxic to aquatic life. Very toxic to aquatic life.

#### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

#### 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. (4-(1,1,3,3- Tetramethylbutyl)phenol) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (4-(1,1,3,3- Tetramethylbutyl)phenol) IATA: Environmentally hazardous substance, solid, n.o.s. (4-(1,1,3,3-Tetramethylbutyl)phenol)

#### 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

#### **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.

## 15. REGULATORY INFORMATION

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

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available

# 15.2 Chemical Safety Assessment - no data available

## 16. OTHER INFORMATION

#### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product