

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

Product name : Furan

2. HAZARDS IDENTIFICATION

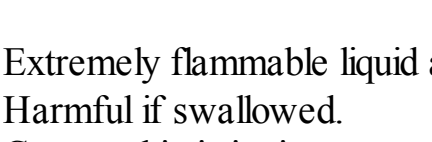
Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Flammable liquids (Category 1)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 3)
Skin irritation (Category 2)
Germ cell mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Specific target organ toxicity - repeated exposure (Category 2)
Chronic aquatic toxicity (Category 3)

According to European Directive 67/548/EEC as amended.
May cause cancer. Extremely flammable. Possible risk of irreversible effects. May form explosive peroxides.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Irritating to skin. Harmful by inhalation and if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H224 Extremely flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H331 Toxic if inhaled.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
EUH019 May form explosive peroxides.

Precautionary statement(s)

P201 Obtain special instructions before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
P311 Call a POISON CENTER or doctor/ physician.

Hazard symbol(s)

F+ Extremely flammable
T Toxic

R-phrases(s)

R45 May cause cancer.
R20/22 Also harmful by inhalation and if swallowed.
R48/22 Also harmful: danger of serious damage to health by prolonged exposure if swallowed.
R12 Extremely flammable.
R19 May form explosive peroxides.
R38 Irritating to skin.
R68 Possible risk of irreversible effects.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

S53 Avoid exposure - obtain special instructions before use.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

Restricted to professional users.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C4H4O

CAS-No.	EC-No.		Classification	Concentration
Furan 110-00-9	203-727-3	-	Flam. Liq. 1; Carc. 1B; Muta. 2; STOT RE 2; Skin Irrit. 2; Aquatic Chronic 3; Acute Tox. 4; H224, H302, H315, H332, H341, H350, H373, H412, EUH019 F+, T, Carc.Cat.2, Mut.Cat.3, R45 - R12 - R19 - R20/22 - R38 - R48/22 - R68 - R52/53	<= 100 %
2,6-di-tert-Butyl-p-cresol 128-37-0	204-881-4	-	Acute Tox. 4; Skin Irrit. 2; Eye 0,025 % Irrit. 2; H302, H315, H319 Xn, R22 - R36/38	

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

4. 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. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid exposure - obtain special instructions before use.Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

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.

Light sensitive. Store under inert gas. Air sensitive. Refrigerate before opening. Over time, pressure may increase causing containers to burst Handle and open container with care.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) 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).

Hand 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.

Eye 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 and body protection

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

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form liquid

Safety data

pH no data available
Melting point no data available
Boiling point 32 °C at 1.011 hPa - lit.
Flash point -36 °C - closed cup
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Density 0,936 g/mL at 25 °C
Water solubility no data available
Partition coefficient: POW: 0,785
n-octanol/water

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to avoid

no data available

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

Contains the following stabiliser(s):

BHT (0,025 %)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 300 mg/kg

LC50 Inhalation - rat - 1 h - 3398 ppm

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste);Eye;Ptosis. Lungs, Thorax, or Respiration:Dyspnea.

LD50 Intraperitoneal - rat - 5,2 mg/kg

LD50 Intraperitoneal - mouse - 7 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

In vitro tests showed mutagenic effects

Carcinogenicity

Possible human carcinogen

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Furan)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

Potential health effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.
Ingestion Toxic if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.

Signs and Symptoms of Exposure

Central nervous system depression, Prolonged or repeated exposure to skin causes defatting and dermatitis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Toxicity to daphnia and other aquatic invertebrates. Remarks: no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

Toxic to aquatic life.
no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 2389 Class: 3 Packing group: I

Proper shipping name: FURAN

IMDG

UN-Number: 2389 Class: 3 Packing group: I EMS-No: F-E, S-D

Proper shipping name: FURAN

Marine pollutant: No

IATA

UN-Number: 2389 Class: 3

Proper shipping name: Furan

IATA Passenger: Not permitted for transport

IATA Cargo: Not permitted for transport

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

Acute Tox. Acute toxicity
Aquatic Chronic Chronic aquatic toxicity
Carc. Carcinogenicity
EUH019 May form explosive peroxides.
Eye Irrit. Eye irritation
Flam. Liq. Flammable liquids
H224 Extremely flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
Muta. Germ cell mutagenicity
Skin Irrit. Skin irritation
STOT RE. Specific target organ toxicity - repeated exposure
F+ Extremely flammable
T Toxic
R12 Extremely flammable.
R19 May form explosive peroxides.
R20/22 Harmful by inhalation and if swallowed.
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R38 Irritating to skin.
R45 May cause cancer.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.
Xn Harmful

Further information

For R&D use only. Not for drug, household or other uses.



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WARRANTY:
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