

Furan: sc-250034



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Furan
Product Number: sc-250034
Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800
Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Flammable liquid. Carcinogen. Target Organ Effect. Toxic by ingestion. Irritant. Mutagen

Target Organs

Liver. Central nervous system. Gastro-intestinal system

Other hazards which do not result in classification

May form explosive peroxides.

GHS Classification

Flammable liquids (Category 1)
Acute toxicity, Oral (Category 3)
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)
Acute aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H224	Extremely flammable liquid and vapor.
H301 + H311	Toxic if swallowed or if inhaled.
H315	Causes skin irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.

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/ vapors/ spray.
P281 Use personal protective equipment as required.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P311 Call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard: 2
Chronic Health Hazard: *
Flammability: 4
Physical hazards: 0

NFPA Rating

Health hazard: 2
Fire: 4
Reactivity Hazard: 0

Potential Health Effects

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C₄H₄O

Molecular Weight: 68.07

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
Furan 110-00-9	203-727-3	603-105-00-5	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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

Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media

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

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions - Carbon oxides

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 vapors accumulating to form explosive concentrations. Vapors 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 contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. 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. Recommended storage temperature: 2 - 8 °C. 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

Contains no substances with occupational exposure limit values.

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 ABEK (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.

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

Form	liquid	pH	no data available
Melting point/freezing point	no data available	Ignition temperature	no data available
Autoignition temperature	no data available	Evaporation rate	no data available
Lower explosion limit	no data available	Upper explosion limit	no data available
Water solubility	no data available	Odor Threshold	no data available
Relative vapor density	no data available	Odor	no data available
Partition coefficient: n-octanol/water	POW: 0.785	Flash point	-36 °C (-33 °F) - closed cup
Vapor pressure	635 hPa (476 mmHg) at 20 °C (68 °F)	Density	0.936 g/mL at 25 °C (77 °F)

Boiling point: 32 °C (90 °F) at 1,011 hPa (758 mmHg) - lit.

10. STABILITY AND REACTIVITY

Chemical stability

May form peroxides on prolonged storage. Date container and periodically test for peroxides.

Possibility of hazardous reactions

Vapors may form explosive mixture with air.

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 - Carbon oxides

Other decomposition products

no data available

Contains the following stabiliser(s): BHT (0.025 %)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50: LD50 Oral - rat - 300 mg/kg

Inhalation LC50: 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.

Dermal LD50: no data available

Other information on acute toxicity: 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)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: Reasonably anticipated to be a human carcinogen (Furan)

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

Furan

CAS-No.: 110-00-9

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard. Acute Health Hazard. Chronic Health Hazard

Massachusetts Right To Know Components

Furan

CAS-No.: 110-00-9

Pennsylvania Right To Know Components

Furan

CAS-No.: 110-00-9

New Jersey Right To Know Components

Furan

CAS-No.: 110-00-9

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Furan

CAS-No.: 110-00-9

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

5/23/2012