

SAFETY DATA SHEET

Revision Date 14-Feb-2020 Revision Number 2

1. Identification

Product Name Tetrahydrofurfuryl chloride

Cat No. : B24015

CAS-No 3003-84-7

Synonyms 2-(Chloromethyl)tetrahydrofuran

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660 Fax: 800-322-4757 **Email:** tech@alfa.com

www.alfa.com

Emergency Telephone Number

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.

After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Specific target organ toxicity (single exposure)

Category 3

Category 2

Category 3

Target Organs - Respiratory system.

Label Elements

Signal Word

Warning

Hazard Statements

Flammable liquid and vapor Causes skin irritation Causes serious eye irritation May cause respiratory irritation



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling

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

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep container tightly closed

Ground/bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Keep cool

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

Skin

If skin irritation occurs: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eve irritation persists: Get medical advice/attention

In case of fire: Use CO2, dry chemical, or foam for extinction

Storage

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

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %		
Furan, 2-(chloromethyl)tetrahydro-	3003-84-7	> 98		

4. First-aid measures

Immediate medical attention is required. Rinse immediately with plenty of water, also under **Eye Contact**

the eyelids, for at least 15 minutes.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Get medical attention. Take off contaminated clothing and shoes

immediately.

Tetrahydrofurfuryl chloride

Inhalation Remove from exposure, lie down. Remove to fresh air. If breathing is difficult, give oxygen.

If not breathing, give artificial respiration, Immediate medical attention is required.

Never give anything by mouth to an unconscious person. Drink plenty of water. Call a Ingestion

physician immediately. If possible drink milk afterwards.

Most important symptoms and

effects

Notes to Physician

nausea and vomiting

Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness,

Treat symptomatically

Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

No information available

Unsuitable Extinguishing Media No information available

47 °C / 116.6 °F **Flash Point**

Method -No information available

Autoignition Temperature

Explosion Limits

Upper No data available No data available Lower

Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Flammable.

Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health **Flammability** Instability Physical hazards 2 2 0 N/A

Accidental release measures

Personal Precautions Environmental Precautions Ensure adequate ventilation. Use personal protective equipment as required.

See Section 12 for additional Ecological Information.

Up

Methods for Containment and Clean Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Sweep up and shovel into

suitable containers for disposal.

7. Handling and storage

Avoid contact with skin and eyes. Do not breathe dust. Do not breathe mist/vapors/spray. Handling

Avoid contact with skin and clothing. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Empty containers retain product residue, (liquid and/or vapor), and

can be dangerous.

Storage Keep in a dry, cool and well-ventilated place. Refer product specification and/or product

label for specific storage temperature requirement. Keep container tightly closed. Keep

away from heat/sparks/open flames/hot surfaces. - No smoking.

8. Exposure controls / personal protection

This product does not contain any hazardous materials with occupational exposure **Exposure Guidelines**

limitsestablished by the region specific regulatory bodies.

Engineering Measures Ventilation systems.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard **Respiratory Protection**

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Handle in accordance with good industrial hygiene and safety practice. **Hygiene Measures**

9. Physical and chemical properties

Physical State Liquid Light yellow **Appearance**

No information available Odor No information available **Odor Threshold** No information available рΗ

Melting Point/Range No data available

Boiling Point/Range 150 - 151 °C / 302 - 303.8 °F @ 760 mmHg

Flash Point 47 °C / 116.6 °F **Evaporation Rate** No information available Flammability (solid,gas) No information available

Flammability or explosive limits

No data available Upper Lower No data available

Vapor Pressure No information available

Vapor Density 4.15 **Specific Gravity** 1.110

Solubility No information available Partition coefficient: n-octanol/water No data available **Autoignition Temperature** No information available

Decomposition Temperature No information available **Viscosity** No information available

C5 H9 CI O **Molecular Formula**

Molecular Weight 120.58

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Oxidizing agent

Tetrahydrofurfuryl chloride

Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors

Hazardous PolymerizationNo information available.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

No acute toxicity information is available for this product

Component Information Toxicologically Synergistic

No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	t CAS-No IARC		IARC NTP ACGIH		OSHA	Mexico	
Furan,	3003-84-7	Not listed	Not listed	Not listed	Not listed	Not listed	
2-(chloromethyl)tetrah							
ydro-							

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental EffectsNo information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

delaved

Endocrine Disruptor Information

Other Adverse Effects The toxicological properties have not been fully investigated. See actual entry in RTECS for

complete information.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a

hazardous waste. Chemical waste generators must also consult local, regional, and

national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1993 **Hazard Class** 3 Ш **Packing Group**

TDG

UN1993 UN-No **Hazard Class** 3 **Packing Group** Ш

<u>IATA</u>

UN-No UN1993

Proper Shipping Name FLAMMABLE LIQUID, N.O.S.*

Hazard Class Packing Group Ш

IMDG/IMO

UN-No UN1993

Proper Shipping Name Flammable liquid, n.o.s.

Hazard Class 3 **Packing Group** Ш

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags	
Furan, 2-(chloromethyl)tetrahydro-	3003-84-7	X	ACTIVE	-	

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed '-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Furan, 2-(chloromethyl)tetrahydro-	3003-84-7	-	Х	221-102-3	-	-	-	-	-

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable Clean Air Act Not applicable

OSHA - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know

Regulations

Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Health, Safety and Environmental Department

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Revision Date 14-Feb-2020 Print Date 14-Feb-2020

Revision Summary SDS authoring systems update, replaces ChemGes SDS No. 3003-84-7/2.

Disclaimer

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End of SDS