SAFETY DATA SHEET

Version 6.0 Revision Date 05/28/2017 Print Date 11/14/2018

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : 4'-(Trifluoromethyl)acetophenone

Product Number : 233188 Brand : Aldrich

CAS-No. : 709-63-7

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

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 Spruce Street ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

1.4 Emergency telephone number

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319

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

2.2 GHS Label elements, including precautionary statements

Pictogram

 \bigcirc

Signal word Warning

Hazard statement(s)

H315 Causes skin irritation. H319 Causes serious eye irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Aldrich- 233188 Page 1 of 7

P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : 4-Acetylbenzotrifluoride

Formula : C₉H₇F₃O

Molecular weight : 188.15 g/mol
CAS-No. : 709-63-7
EC-No. : 211-913-0

Hazardous components

Component	Classification	Concentration
1-[4-(Trifluoromethyl)phenyl]ethan-1-one		
	Skin Irrit. 2; Eye Irrit. 2A;	<= 100 %
	H315, H319	

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

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. 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. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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, Hydrogen fluoride

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

Aldrich- 233188 Page 2 of 7

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

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. Further processing of solid materials may result in the formation of combu formation should be taken into consideration before additional processing Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters

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

Safety glasses with side-shields conforming to EN166 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.

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

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Aldrich- 233188 Page 3 of 7

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: Solidified mass or fragments

Colour: colourless

Odour No data available b) Odour Threshold No data available c) No data available d) рH

Melting point/freezing

Melting point/range: 30 - 33 °C (86 - 91 °F) - lit.

Initial boiling point and

boiling range

79 - 80 °C (174 - 176 °F) at 11 hPa - lit.

84 °C (183 °F) - closed cup g) Flash point

h) Evaporation rate No data available i) Flammability (solid, gas) No data available Upper/lower No data available

flammability or

explosive limits

k) Vapour pressure No data available Vapour density No data available m) Relative density No data available n) Water solubility No data available No data available Partition coefficient: n-

octanol/water

Auto-ignition temperature

No data available

Decomposition temperature

No data available

No data available r) Viscosity Explosive properties No data available No data available Oxidizing properties

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions 10.3

No data available

Conditions to avoid 10.4

No data available

10.5 Incompatible materials

Reducing agents

Aldrich- 233188 Page 4 of 7

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen fluoride Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available1-[4-(Trifluoromethyl)phenyl]ethan-1-one

Inhalation: No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Dermal: No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Skin corrosion/irritation

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Serious eye damage/eye irritation

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Respiratory or skin sensitisation

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Germ cell mutagenicity

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Carcinogenicity

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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a

known or anticipated carcinogen by NTP.

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(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Specific target organ toxicity - single exposure

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

Aldrich- 233188 Page 5 of 7

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(1-[4-(Trifluoromethyl)phenyl]ethan-1-one)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

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

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

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

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

CAS-No. Revision Date 1-[4-(Trifluoromethyl)phenyl]ethan-1-one 709-63-7

New Jersey Right To Know Components

CAS-No. Revision Date 1-[4-(Trifluoromethyl)phenyl]ethan-1-one 709-63-7

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aldrich- 233188 Page 6 of 7

H315 Causes skin irritation.

H319 Causes serious eye irritation.

HMIS Rating

Health hazard: 2
Chronic Health Hazard:
Flammability: 0
Physical Hazard 0

NFPA Rating

Health hazard: 2
Fire Hazard: 2
Reactivity Hazard: 0

Further information

Copyright 2016 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

Version: 6.0 Revision Date: 05/28/2017 Print Date: 11/14/2018

Aldrich- 233188 Page 7 of 7