



8210 N. Austin Avenue, Morton Grove, IL 60053-3205, U.S.A.
 847-967-6000 800-323-8144
 (Monday - Friday: 7:30 a.m. - 4:00 p.m. CST)

Emergency Contact:
 INFOTRAC 800-535-5053 [U.S.A.]

Name: (R)-(-)-MTPA-Cl or (R)-(-)- α -Methoxy- α -(trifluoromethyl)phenylacetyl chloride
 Code: 1-270900-200, 1-270900-500, 1-270901-200, 1-270902-200

..... **SAFETY DATA SHEET**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

- 1.1 Product Identifier
 - Name (R)-(-)-MTPA-Cl or (R)-(-)- α -Methoxy- α -(trifluoromethyl)phenylacetyl chloride
 - Code 1-270900-200, 1-270900-500, 1-270901-200, 1-270902-200
- 1.2 Use of Substance/Mixture
 - Use Analytical Reagent for Gas Chromatography
- 1.3 Details of Manufacturer/Supplier
 - Company Regis Technologies, Inc.
 8210 N. Austin Avenue
 Morton Grove, IL 60053
 847-967-6000; 800-323-8144 (toll free)
 Email: cservice@registech.com
 www.registech.com
- 1.4 Emergency Telephone
 - INFOTRAC 800-535-5053 [U.S.A.]

SECTION 2 HAZARDS IDENTIFICATION

- 2.1 Classification of the Substance or Mixture
 - GHS Classification

Flammable Liquid	Category 4	H227
Skin Corrosion / Irritation	Category 1C	H314
Serious Eye Damage / Irritation	Category 1	H318

GHS Label Elements
 Pictograms or hazard symbols



Signal Word Danger

Hazard Statement
 H227 – Combustible liquid.
 H314 – Causes severe skin burns and eye damage.
 H318 – Causes serious eye damage.

Precautionary Statements
 [Prevention]
 P210 – Keep away from heat/sparks/open flames/hot surfaces.
 P231 + P232 – Handle under inert gas and protect from moisture.
 P261 – Avoid breathing vapors or mist.
 P264 – Wash skin thoroughly after handling.
 P271 – Use only outdoors or in a well-ventilated area.
 P280 – Wear protective gloves/eye protection/face protection.
 [Response]
 P301+P330+P331 – IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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present and easy to do. Continue rinsing.
 P314 – Get medical advice/attention if you feel unwell.
 [Storage] P402+P404 – Store in a dry place. Store in a closed container.
 P403+P235 – Store in a well-ventilated place. Keep cool. Recommended storage temperature: 2-8°C
 Disposal] P501 – Dispose of contents/ container to an approved waste disposal plant.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name (R)-(-)-MTPA-Cl or (R)-(-)- α -Methoxy- α -(trifluoromethyl)phenylacetyl chloride
 Synonyms Mosher's Acid Chloride

Hazardous components

Component	Classification	Concentration
(R)-(-)- α -Methoxy- α -(trifluoromethyl)phenylacetyl chloride	Flam. Liq. 4; Skin Corr. 1C; Eye Dam. 1; Carc. 2; H227; H314; H318	≥ 99.0 %
CAS No. 39637-99-5		
EC No. No data available		
Formula C ₁₀ H ₉ ClF ₃ O ₂		
Molecular Mass 119.3		

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

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact: Rinse eyes with plenty of water for at least 15 minutes; lift eyelids occasionally. If irritation persists, consult physician.
 Skin contact: Immediately remove contaminated clothing and shoes, then wash skin with soap and plenty of water. If irritation persists, consult physician.
 Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and keep person warm and at rest. Consult physician.
 Ingestion: Give large amounts of water or milk (two glasses at most). Avoid vomiting. Consult physician immediately. Do not attempt to neutralize.
 Physician note: Symptomatic and supportive care. There is no specific antidote.

4.2 Most important symptoms and effects, both acute and delayed.
 Causes severe skin burns and eye damage. Risk of blindness. Redness, tearing, shortness of breath, cough, headache.

4.3 Indication of immediate medical attention and special treatment needed.
 No information available.

SECTION 5 FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media
 Carbon dioxide, dry chemical powder, foam.

5.2 Specific hazards arising from the chemical.
 Corrosive liquid and vapor.
 May decompose on contact with water to product hydrochloric acid.
 Sufficient dilution of water may reduce the acidity of the solution.
 Water spray may be used to cool fire-exposed containers. Emits toxic fumes under fire conditions.
 Produces carbon oxides, hydrogen chloride, and hydrogen fluoride upon combustion.

5.3 Advice for fire-fighters
 Wear personal protective equipment for corrosive organic/acidic vapor conditions. Wear self-contained breathing apparatus (SCBA) if necessary.



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SECTION 6 ACCIDENTAL RELEASE MEASURES.....

- 6.1 Personal precautions, protective equipment, and emergency procedures
 For non-emergency personnel - Do not breath vapors or mists. Avoid material contact. Evacuate unnecessary personnel from area, observe emergency procedures, consult an expert.
 For emergency responders – Protective equipment for corrosive organic/acidic vapor conditions. See Section 8.3.
- 6.2 Environmental precautions
 Prevent material from entering drains.
- 6.3 Methods of clean up
 Evacuate unnecessary people from area. Isolate spilled material.
 Ventilate area. Eliminate all ignition sources. Use spark proof tools.
 If neat or in solution, mix with sand or similar inert adsorbent material or spill pillow.
 (If possible to do so safely, neutralize waste to pH 6-9 prior to disposal.)
 Sweep up, seal in appropriate hazardous waste container, and hold for proper waste disposal.
 Keep out of water supplies and sewers. Wash spill site after material pickup is complete.

SECTION 7 HANDLING AND STORAGE.....

- 7.1 Safe Handling Precautions
 Wear suitable protective equipment to avoid contact with skin, eyes, or inhalation of corrosive organic/acidic vapors.
 Wash thoroughly after handling. Immediately remove contaminated clothing. Material can be very corrosive to body tissue.
 Handle in a dry, well ventilated area. Use local exhaust if vapor can be generated.
 Keep away from ignition sources. Take precautionary measures against static discharge. Handle under inert gas.
 See Section 2 for precautions.
- 7.2 Storage Conditions
 Store under inert gas in a tightly sealed container. Moisture sensitive. Store in a cool, dry place suitable for corrosive materials, away from incompatibilities.
 Recommended storage temperature: 2-8°C (35-46°F).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION.....

- 8.1 Control parameters

Exposure limits	No data available
Environmental	Do not empty into drains.
- 8.2 Appropriate engineering controls
 Safety shower and eye wash
 Local exhaust and mechanical ventilation required. Hood recommended. Fume scrubber.
- 8.3 Personal protection

Eye/Face	Chemical safety eyewear or goggles
Hand	Compatible chemical-resistant gloves: Rubber (e.g., natural rubber, neoprene, nitrile, or equivalent), Silver Shield®, Viton®
Respiratory	NIOSH/MSHA or European Standards approved respirator for corrosive organic/acidic vapor if exposure limits are exceeded or irritation or other symptoms are experienced.
Dermal (not hand)	Protective Clothing (e.g., lab coat)--flame retardant anti-static material recommended.
Hygiene	Avoid inhalation, ingestion; contact with eyes, skin, and clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated footwear.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on physical and chemical data

Form	liquid
Appearance	clear, colorless

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Odor	acidic	
Odor threshold	No data available	
pH	No data available	
Melting/freezing point	No data available	
Initial boiling point:	213-214°C (415-417°F)	
Flammability (liquid, solid)		
Flash Point	89°C (192°F) (Lit.)	Method: closed cup
Flammable limits (%v/v)	LEL (lower explosive limit)	No data available
	UEL (upper explosive limit)	No data available
Autoignition temperature	No data available	
Decomposition temperature	No data available	
OSHA Flammability Class	IIIA	
Evaporation Rate (BuAc = 1.0)	No data available	
Vapor pressure	No data available	
Vapor density (air=1):	5.8	
Relative density (g/cm ³)	1.353 at 25°C (77°F)	
Water Solubility	Decomposes partially to acid form and hydrochloric acid.	
Water reactive	Decomposes	
Solubility (other)	Carbon tetrachloride	
Partition coefficient: N-octanol/water	No data available	
Viscosity	No data available	
% Volatiles	No data available	
Optical Rotation:	-136 degree (c = 6.6% in CCl ₄)	

SECTION 10 STABILITY AND REACTIVITY

- 10.1 Reactivity
None known, based on available information.
- 10.2 Chemical Stability
Stable under when stored) under inert gas. Recommended storage temperature: 2-8°C (35-46°F)
- 10.3 Possibility of hazardous reactions
No data available
- 10.4 Conditions to avoid
Avoid incompatibilities.
Protect from heat and ignition sources.
Keep out of water supplies and sewers.
- 10.5 Incompatible materials
Strong oxidizers
Bases
Water or moist air--(R)-(-)-MTPA-Cl can decompose on contact with moisture to produce hydrochloric acid.
- 10.6 Hazardous decomposition products
Combustion carbon oxides, hydrogen fluoride, hydrogen chloride
Decomposition hydrochloric acid and Mosher's acid

SECTION 11 TOXICOLOGICAL INFORMATION.....

- 11.1 Toxicological Information

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory irritation	No data available
Respiratory or skin sensitization	No data available

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Germ cell mutagenicity	No data available
Carcinogenicity	
IARC	No data available
NTP	No data available
OSHA	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available
RTECS Number	No data available

11.2 Further Information

Potential health effects

Eye

Causes serious eye damage – destruction to mucous membranes, burns, risk of blindness. Redness, tearing.

Skin

Causes severe skin burns. Redness.

Inhalation

Harmful if inhaled. May be destructive to mucous membranes and respiratory tract.

Ingestion

Harmful if inhaled. May be destructive to mucous membranes of the GI system.

Symptoms

See above route. Pre-existing conditions that may be aggravated: not determined.

Miscellaneous

No data available

SECTION 12 ECOLOGICAL INFORMATION

12.1 Ecotoxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Motility in soil	No data available
12.5 Other adverse effects	No data available
General Notes	Do not empty into drains or water courses.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods	
U . S. EPA Waste Codes	D002
Waste Characterization	RCRA Hazard Class (40CFR 261): Corrosive
(per U. S. regulations)	Generator is responsible for proper waste characterization. NOTE: U. S. Federal and state hazardous waste regulations may differ considerably.
Waste Disposal	That which cannot be recovered or recycled, should be disposed of in accordance with all applicable international, national, regional, state, and local laws. Do NOT dump into any sewer, on ground, or into any body of water.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number	UN3265
14.2 UN proper shipping name	Corrosive Liquid, acidic, organic, n.o.s. ((R)-(-)-alpha-Methoxy-alpha-(trifluoromethyl)phenylacetyl chloride)
14.3 Transport Hazard Class	8
14.5 Packing group	PG II
14.6 Environmental hazards	Not applicable
14.6 Special precautions for user	See Section 8 for exposure/personal protection guidance.

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and Environmental regulations specific for the product in question.

NFPA: H3 F2 R0 HMIS: H3 F2 R0

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15.2 Chemical Inventory Lists

Reviews, Standards, and Regulations

..... (R)-(-)-MTPA-Cl or
 (R)-(-)-α-Methoxy-α-(trifluoromethyl)phenylacetyl chloride
 CAS number 39637-99-5
 TSCA: Y
 This compound is sold strictly for FDA or research and development use.
 EINECS: N
 Number 213-059-4
 CERCLA [Section 103 (40 CFR 302.4)]: NL
 RQ (lbs) NA
 RCRA Waste Code NA
 OSHA Process Safety [29 CFR 1910.119]: NL
 TQ (lbs) NA
 Clean Air Act
 [Section 112r (40 CFR 68)]: NL
 TQ (lbs) NA
 Contains Ozone Depleters (Class I or Class II) N
 SARA Title III Notification [40 CFR 302.4]:
 Section 302/304 (EHS) Ingredient
 [40 CFR 355.3] NL
 TPQ (lbs) NA
 RQ (lbs) NA
 Section 313 Ingredient [40 CFR 372.65] NL
 SARA Hazards Acute.....Y Chronic..... N Fire.....Y Pressure..... N ReactivityN
 State Lists: NL
 States NL
 On CA 65 Significant Risk Level NL

SECTION 16 **OTHER INFORMATION**

16.1 Full test of H-Statements referred to under Section 2 and 3.

Flam. Liq.	Flammable liquid
Eye Dam.	Serious eye damage
H227	Combustible liquid
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
Skin Corr.	Skin corrosion

The above information is believed to be correct to the best of our present state knowledge, but does not purport to be all-inclusive and shall be used only as a guide. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

Prepared by: Regis Technologies

This is the last page of this MSDS.