

SAFETY DATA SHEET

Creation Date 08-Mar-2012

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Revision Number 4

1. Identification

Product Name **Sebacoyl chloride**

Cat No. : **AC294900000; AC294900500; AC294902500; AC294905000**

Synonyms Sebacyl chloride

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

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

| | |
|--|--------------|
| Corrosive to metals | Category 1 |
| Acute oral toxicity | Category 4 |
| Acute dermal toxicity | Category 2 |
| Skin Corrosion/irritation | Category 1 B |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system. | |

Label Elements

Signal Word

Danger

Hazard Statements

May be corrosive to metals

Harmful if swallowed

Fatal in contact with skin

Causes severe skin burns and eye damage

May cause respiratory irritation

**Precautionary Statements****Prevention**

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

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not get in eyes, on skin, or on clothing

Do not breathe dust/fume/gas/mist/vapors/spray

Keep only in original container

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

Wash contaminated clothing before reuse

Immediately call a POISON CENTER or doctor/physician

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

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

Storage

Store locked up

Store in corrosive resistant polypropylene container with a resistant inliner

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

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Contact with water liberates toxic gas

Lachrymator (substance which increases the flow of tears)

Other hazards

Water reactive. May be harmful if inhaled.

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|------------------------|-----------|----------|
| Decanedioyl dichloride | 111-19-3 | > 92 |
| Hydrochloric acid | 7647-01-0 | 1-3 |
| Decanedioic acid | 111-20-6 | 1-3 |

4. First-aid measures

Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact

Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes.

Inhalation

Immediate medical attention is required. Move to fresh air. Do not use mouth-to-mouth

method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If not breathing, give artificial respiration.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms and effects

Causes burns by all exposure routes. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure and increased heart rate. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Notes to Physician

Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media DO NOT USE WATER

Flash Point > 110 °C / > 230 °F

Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Contact with water liberates toxic gas.

Hazardous Combustion Products

Hydrogen chloride gas Carbon monoxide (CO) Carbon dioxide (CO₂) Phosgene

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
4

Flammability
1

Instability
2

Physical hazards
W

6. Accidental release measures

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid contact with the skin and the eyes. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental Precautions See Section 12 for additional ecological information. Should not be released into the environment.

Methods for Containment and Clean Up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Do not expose spill to water. Do not let this chemical enter the environment.

7. Handling and storage

Handling Ensure adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Keep under nitrogen. Do not get in eyes, on skin, or on clothing. Do not ingest. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not allow contact with water because of violent reaction.

Storage

Corrosives area. Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep under nitrogen. Keep away from water.

8. Exposure controls / personal protection

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH | Mexico OEL (TWA) |
|-------------------|----------------|--|--|--|
| Hydrochloric acid | Ceiling: 2 ppm | Ceiling: 5 ppm Ceiling: 7 mg/m ³ (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/m ³ | IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³ | Ceiling: 5 ppm Ceiling: 7 mg/m ³ |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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 EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard 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.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|--|---------------------------|
| Physical State | Liquid |
| Appearance | Light yellow |
| Odor | Strong |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point/Range | -2.5 °C / 27.5 °F |
| Boiling Point/Range | 220 °C / 428 °F @ 75 mmHg |
| Flash Point | > 110 °C / > 230 °F |
| Evaporation Rate | No information available |
| Flammability (solid,gas) | Not applicable |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | 75 mmHg @ 20 °C |
| Vapor Density | 8.25 |
| Specific Gravity | 1.121 |
| 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 |

Molecular Formula
Molecular Weight

C10 H16 Cl2 O2
 239.14

10. Stability and reactivity

| | |
|---|--|
| Reactive Hazard | Yes |
| Stability | Moisture sensitive. Contact with water liberates toxic gas. |
| Conditions to Avoid | Incompatible products. Exposure to moist air or water. |
| Incompatible Materials | Bases, Strong acids, Alcohols, Metals, Oxidizing agents |
| Hazardous Decomposition Products | Hydrogen chloride gas, Carbon monoxide (CO), Carbon dioxide (CO ₂), Phosgene |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Hazardous Reactions | Water reactive. |

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50

Category 4. ATE = 300 - 2000 mg/kg.

Dermal LD50

Category 2. ATE = 50 - 200 mg/kg.

Vapor LC50

Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|------------------------|---|-------------------------|-----------------------|
| Decanedioyl dichloride | LD50 = 400 mg/kg (Rat) | 56 mg/kg (Rabbit) | Not listed |
| Hydrochloric acid | 238 - 277 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | 1.68 mg/L (Rat) 1 h |
| Decanedioic acid | LD50 = 3400 mg/kg (Rat) LD50 = 14375 mg/kg (Rat) | >2000 mg/kg (Rat) | Not listed |

Toxicologically Synergistic No information available

Products

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

Irritation Causes burns by all exposure routes

Sensitization No information available

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

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|------------------------|-----------|------------|------------|------------|------------|------------|
| Decanedioyl dichloride | 111-19-3 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Hydrochloric acid | 7647-01-0 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Decanedioic acid | 111-20-6 | Not listed | Not listed | Not listed | Not listed | Not listed |

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No 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 delayed Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure and increased heart rate: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|-------------------|------------------|--|------------|-------------------------|
| Hydrochloric acid | - | 282 mg/L LC50 96 h Gambusia affinis mg/L LC50 48 h Leuciscus idus | - | 56mg/L EC50 72h Daphnia |
| Decanedioic acid | Not listed | LC50 >100 mg/L/96h (Brachydanio rerio) | Not listed | EC50 >100 mg/L/48h |

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment.

| Component | log Pow |
|------------------|---------|
| Decanedioic acid | 1.5 |

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 UN2922
 Proper Shipping Name CORROSIVE LIQUIDS, TOXIC, N.O.S.
 Proper technical name Decanedioyl dichloride, Hydrochloric acid
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group II

TDG

UN-No UN2922
 Proper Shipping Name CORROSIVE LIQUID, TOXIC, N.O.S.
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group II

IATA

UN-No UN2922
 Proper Shipping Name CORROSIVE LIQUID, TOXIC, N.O.S.
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group II

IMDG/IMO

| | |
|-------------------------|---------------------------------|
| UN-No | UN2922 |
| Proper Shipping Name | CORROSIVE LIQUID, TOXIC, N.O.S. |
| Hazard Class | 8 |
| Subsidiary Hazard Class | 6.1 |
| Packing Group | II |

15. Regulatory information

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|------------------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Decanedioyl dichloride | X | X | - | 203-843-4 | - | | X | X | X | X | X |
| Hydrochloric acid | X | X | - | 231-595-7 | - | | X | X | X | X | X |
| Decanedioic acid | X | X | - | 203-845-5 | - | | X | X | X | X | X |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

Not applicable

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|-------------------|-----------|----------|-------------------------------|
| Hydrochloric acid | 7647-01-0 | 1-3 | 1.0 |

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

CWA (Clean Water Act)

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|-------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Hydrochloric acid | X | 5000 lb | - | - |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-------------------|-----------|-------------------------|-------------------------|
| Hydrochloric acid | X | | - |

OSHA Occupational Safety and Health Administration

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|-------------------|----------------------------------|----------------------------|
| Hydrochloric acid | - | TQ: 5000 lb |

CERCLA

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|-------------------|--------------------------|----------------|
| Hydrochloric acid | 5000 lb | 5000 lb |

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

U.S. State Right-to-Know

Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------|---------------|------------|--------------|----------|--------------|
| Hydrochloric acid | X | X | X | X | X |

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 contains the following DHS chemicals:

| Component | DHS Chemical Facility Anti-Terrorism Standard |
|-------------------|---|
| Hydrochloric acid | 0 lb STQ (anhydrous); 11250 lb STQ (37% concentration or greater) |

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Regulatory Affairs
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Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS