SAFETY DATA SHEET

Creation Date 08-March-2012 **Revision Date** 19-December-2025 **Revision Number** 7

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

1. Identification

Product Name **Sebacoyl chloride**

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

Synonyms Sebacyl chloride

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Importer/Distributor
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

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

Emergency Telephone Number
For information **US** call: 001-800-227-6701 / **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

WHMIS 2015 Classification This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

Corrosive to metals	Category 1	
Acute oral toxicity	Category 4	
Acute dermal toxicity	Category 2	
Acute Inhalation Toxicity	Category 3	(based on evolved HCl gas)
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.		
Health Hazards Not Otherwise Classified	Category 1	
In contact with water, releases gases which are toxic if inhaled		
Lachrymator		

Label Elements

Signal Word
Danger

Hazard Statements
May be corrosive to metals
Harmful if swallowed
Fatal in contact with skin
Toxic if inhaled
Causes severe skin burns and eye damage
May cause respiratory irritation
In contact with water, releases gases which are toxic if inhaled
Lachrymator

Precautionary Statements
Prevention
Do not allow contact with water
Do not breathe dust/fumes/gas/mist/vapours/spray
Use only outdoors or in a well-ventilated area
Keep only in original packaging
Do not get in eyes, on skin, or on clothing
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
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/doctor
Wash contaminated clothing before reuse
Storage
Store locked up
Store in corrosive resistant polypropylene container with a resistant inliner
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place
Disposal
Dispose of contents/container to an approved waste disposal plant

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. Remove 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/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 (CO_2). 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
Carbon monoxide (CO). Carbon dioxide (CO_2). Phosgene. Hydrogen chloride gas.
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
4	1	2	W

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin and 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. Handle product only in closed system or provide appropriate exhaust ventilation. Wear personal protective equipment/face protection. Keep under nitrogen. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. 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 or moist air. Incompatible Materials. Bases. Strong acids. Alcohols. Metals. Oxidizing agent.

8. Exposure controls / personal protection

Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec
Hydrochloric acid	Ceiling: 2 ppm Ceiling: 3 mg/m³	Ceiling: 2 ppm	CEV: 2 ppm	Ceiling: 2 ppm

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Hydrochloric acid	Ceiling: 2 ppm	Ceiling: 2 ppm	Ceiling: 2 ppm	Ceiling: 2 ppm

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Hydrochloric acid	Ceiling: 2 ppm	Ceiling: 2 ppm	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m³

Component	ACGIH TLV	OSHA PEL	NIOSH
Hydrochloric acid 7647-01-0 (1-3)	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m³ (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/m³	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles
Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	Glove comments
Natural rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations		Splash protection only

Butyl rubber	-

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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.

Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387

Environmental exposure controls
No information available.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Appearance

Physical State	Liquid	
Color	Light yellow	
Odor	Strong	
Odor Threshold	No information available	

Property	**Values**	**Remarks • Method**
Melting Point/Range	-2.5 °C / 27.5 °F	
Softening Point	No data available	
Boiling Point/Range	220 °C / 428 °F	@ 75 mmHg
Flash Point	> 110 °C / > 230 °F	**Method -** No information available
Flammability (liquid)	No data available	
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
pH	No information available	
Viscosity	No data available	
Water Solubility	Decomposes in contact with water	
Solubility in other solvents	No information available	

Partition Coefficient (n-octanol/water)

Component	**log Pow**
Decanedioic acid	1.5

Vapor Pressure	75 mmHg @ 20 °C	
Density / Specific Gravity	1.121	
Bulk Density	Not applicable	Liquid
Vapor Density	8.25	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

Other Information

Molecular Formula	C10 H16 Cl2 O2
Molecular Weight	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 agent

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2), Phosgene, Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Water reactive.

11. Toxicological information

Information on expected route of exposure

Inhalation Not an expected route of exposure.
Ingestion May be harmful if swallowed.
Eyes Avoid contact with eyes. Corrosive to the eyes and may cause severe damage including blindness. May cause irritation. Risk of serious damage to eyes. Lachrymator (substance which increases the flow of tears).
Skin Avoid contact with skin. Skin Corrosion/Irritation. May cause irritation. Contact with moist skin may cause skin burns.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Decanedioyl dichloride	LD50 = 400 mg/kg (Rat)	56 mg/kg (Rabbit)	-
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)	>2000 mg/kg (Rat)	-

Toxicologically Synergistic Products No information available

(b) skin corrosion/irritation; Category 1 B

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) 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

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

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

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.

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

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

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 Leucscus 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	consumer commodity CORROSIVE LIQUIDS, TOXIC, N.O.S.
Technical Shipping Name	Sebacoyl chloride
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

TDG

UN-No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s.
Technical Shipping Name	Sebacoyl chloride
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

IATA

UN-No	UN2922
Proper Shipping Name	Corrosive liquid, toxic, n.o.s.
Technical Shipping Name	Sebacoyl chloride
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.
Technical Shipping Name	Sebacoyl chloride
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

15. Regulatory information

International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Decanedioyl dichloride	111-19-3	X	-	X	ACTIVE	203-843-4	-	-
Hydrochloric acid	7647-01-0	X	-	X	ACTIVE	231-595-7	-	-
Decanedioic acid	111-20-6	X	-	X	ACTIVE	203-845-5	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Decanedioyl dichloride	111-19-3	X	KE-30910	X	X	X	X	X	X
Hydrochloric acid	7647-01-0	X	KE-20189	X	X	X	X	X	X
Decanedioic acid	111-20-6	X	KE-09402	X	X	X	X	X	X

Legend:
X - Listed '-' - Not listed
KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA)	Canada's Chemicals Management Plan (CEPA)

		- List of Toxic Substances	
Hydrochloric acid	Part 1, Group A Substance		

Other International Regulations

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Hydrochloric acid	-	Use restricted. See entry 75. (see link for restriction details)	-

REACH links
https://echa.europa.eu/substances-restricted-under-reach

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Decanedioyl dichloride	111-19-3	Not applicable	Not applicable	Not applicable	Not applicable
Hydrochloric acid	7647-01-0	Listed	Not applicable	Not applicable	Not applicable
Decanedioic acid	111-20-6	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Decanedioyl dichloride	111-19-3	Not applicable	Not applicable	Not applicable	Not applicable
Hydrochloric acid	7647-01-0	25 tonne	250 tonne	Not applicable	Annex I - Y34
Decanedioic acid	111-20-6	Not applicable	Not applicable	Not applicable	Annex I - Y34

16. Other information

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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