



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 15-Nov-2017

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name 4-Chlorodiphenyl ether
Product Code SC-232600

Recommended use of the chemical and restrictions on use

For research use only. Not intended for diagnostic or therapeutic use.

Details of the supplier of the safety data sheet

Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Emergency telephone number

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

2. HAZARDS IDENTIFICATION

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

Classification

Acute toxicity - Oral
Serious eye damage/eye irritation
Skin sensitization

Category 4
Category 1
Category 1

Label elements

Signal word
Hazard statements

Danger
Harmful if swallowed
Causes serious eye damage
May cause an allergic skin reaction

Symbols/Pictograms



Precautionary Statements - Prevention

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
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace



Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 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
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Disposal

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC) Not applicable

Other Information

NFPA	Health hazards	2		HMIS	Health hazards	2
	Flammability	1			Flammability	1
	Stability	0			Physical hazards	0
	Physical and chemical properties	-			Personal protection	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 7005-72-3
 Molecular Weight 204.65
 Formula C₁₂H₉ClO

Chemical Name	CAS No	Weight %	Oral LD50	Dermal LD50	Inhalation LC50
4-Chlorodiphenyl ether	7005-72-3	>98	-	-	-

4. FIRST AID MEASURES

First Aid Measures

General advice Consult a physician if necessary. Remove to fresh air.
 Eye contact Wash with plenty of water.
 Skin Contact Wash skin with soap and water.
 Inhalation Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration
 Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media



Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	None.

Specific hazards arising from the chemical

Specific hazards arising from the chemical	Thermal decomposition can lead to release of toxic/corrosive gases and vapors.
Hazardous combustion products	Carbon oxides. Phosgene.

Explosion data

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

Protective equipment and precautions for firefighters

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.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation, especially in confined areas.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Thermal decomposition can lead to release of toxic/corrosive gases and vapors.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature.
Incompatible materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines	.
Other Information	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
4-Chlorodiphenyl ether 7005-72-3	-	(vacated) TWA: 0.5 mg/m ³	IDLH: 5 mg/m ³ TWA: 0.5 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls



Engineering Controls
 Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
 Skin and Body Protection Wear protective gloves and protective clothing.
 Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
 General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State liquid
 Appearance No information available
 Odor No information available

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	No information available
Boiling point	161 °C
Flash point	113.0 °C CC (closed cup)
Density	1.193 g/mL
Evaporation rate	No information available
Upper flammability limits	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	4.20
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity Not applicable
 Chemical stability Stable under recommended storage conditions.
 Possibility of Hazardous Reactions None under normal processing.
 Hazardous polymerization No information available.
 Conditions to avoid Extremes of temperature and direct sunlight.
 Incompatible materials Strong oxidizing agents.
 Hazardous Decomposition Products Carbon oxides. Phosgene.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation No data available.
 Eye contact No data available.



Skin Contact No data available.
Ingestion No data available.

Information on toxicological effects

Symptoms No information available.

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

Chronic Toxicity May cause adverse liver effects.
Target Organ Effects Liver, Skin.

Numerical measures of toxicity - Product Information

Unknown acute toxicity No information available
The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 500 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity May cause long lasting harmful effects to aquatic life

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Persistence and degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

Chemical Name	Partition coefficient
4-Chlorodiphenyl ether 7005-72-3	4.08

13. DISPOSAL CONSIDERATIONS

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT

UN/ID no UN3082
Hazard Class 9
Packing Group III
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
Emergency Response Guide Number 171

IMDG

UN/ID no UN3082
Hazard Class 9
Packing Group III
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III
Special Provisions 274, 335
EmS-No F-A, S-F

**IATA**

UN/ID no UN3082
 Hazard Class 9
 Packing Group III
 Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
 Description UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III

15. REGULATORY INFORMATION**International Inventories**

All of the components in the product are on the following Inventory lists

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) ENCS (Japan):

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
4-Chlorodiphenyl ether	X	-	X	X	-	X	-	-	-	X

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard No
 Chronic Health Hazard No
 Fire hazard No
 Sudden release of pressure hazard No
 Reactive hazard No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
4-Chlorodiphenyl ether 7005-72-3			X	

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
4-Chlorodiphenyl ether 7005-72-3	X	X	X

16. OTHER INFORMATION



Revision note

No information available

Disclaimer

The information provided in this Material 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 Safety Data Sheet