Safety Data Sheet

(±)-Chlorophacinone-d_4 (indanedione-4,5,6,7-d_4)

Section 1. Chemical product and company identifications

Product code: D-7082
Chemical formula: $C_{23}H_{11}D_4ClO_3$
CAS: 1219805-75-0
CAS (unlabelled): 3691-35-8
Synonyms: 2-[(4-Chlorophenyl)phenylacetyl]-1,3-indonedione

Supplier / Manufacturer:

C/D/N Isotopes Inc.
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Website: www.cdnisotopes.com

In case of emergency:

TOXYSCAN HOTLINE: 1-855-780-0599

Section 2. Hazards identifications

Physical state: Solid
Warning: Fatal if swallowed or in contact with skin
Routes of entry: Inhalation, ingestion, skin and eyes

GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

GHS Classification:
- Acute toxicity, Oral (Category 1)
- Acute toxicity, Dermal (Category 1)
- Specific target organ toxicity - repeated exposure, Oral (Category 1)

GHS Label elements:
- Pictograms:
- Signal word: Danger

Hazards statement:
- H300 + H310 Fatal if swallowed or in contact with skin.
- H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement:
- P280 Wear protective gloves/ protective clothing.
- P301 + P 330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302 + P350 IF ON SKIN: Wash with plenty of soap and water.
- P310 Immediately call a POISON CENTER or doctor/ physician.

Section 3. Composition and information on ingredients

Name	CAS	Concentration %
(±)-Chlorophacinone-d_4	1219805-75-0	> 98

Section 4. First aid measures

Eye contact: Flush eyes with water as a precaution.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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Section 5. Firefighting measures

Flammability of the product: Not flammable or combustible.
Lower explosion limit: No data available
Upper explosion limit: No data available
Auto-ignition temperature: No data available
Flash point: No data available
Products of combustion: Hazardous decomposition products formed under fire conditions. Carbon oxides, hydrogen chloride gas.
Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods for cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage: Store at room temperature. Adequate ventilation.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.
Eyes: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Respiratory: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).
Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 374.82 g/mol
Physical status: Solid
Color: White to off-white
Odour: No data available
Density: No data available
Melting point: 138 C (280 ºF)
Boiling point: No data available
Vapour pressure: No data available
Vapour density: No data available
Partition coefficient (octanol/water): No data available
Water solubility: 0.01 g/L

Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.
Incompatibility: Strong oxidizing/reducing agents.
Products of combustion: Hazardous decomposition products formed under fire conditions. Carbon oxides, hydrogen chloride gas
Reactivity conditions: No data available

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Section 11. Toxicological information (unlabelled)

Toxicological data: (±)-Chlorophacinone

Information on ingredients:

Name	CAS	LD_{50}	LC_{50}
(±)-Chlorophacinone	3691-35-8	Oral - Rat - 2.1 mg/kg	No data available

Potential acute effects

- **Eyes:** May cause eye irritation.
- **Skin:** Fatal if absorbed through skin. May cause skin irritation.
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion:** Fatal if swallowed.

Potential chronic effects

- **Carcinogenic effects:** 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. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** No data available.

Section 12. Ecological information

Ecological data:

Name	Results	Species	Period
(±)-Chlorophacinone	0.7 mg/l LC50 0.42 mg/l EC50	Lepomis macrochirus Daphnia magna	96 h 48 h

Effects on environment: Very toxic to aquatic life.
Mobility: No data available
Environmental precautions: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available

Section 13. Disposal considerations

Waste disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Toxic solids, organic, n.o.s. (Chlorophacinone)
UN number: 2811
Class: 6.1
Packaging group: I

Additional information: None

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Section 15. Regulatory information

UNITED STATES:
NFPA classification

Health: 3
Flammable: 0
Reactivity: 0
Specials conditions:

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

TSCA 8(b) inventory: (±)-Chlorophacinone
SARA 302/304/311/312 extremely hazardous substances: Not Listed
SARA 302/304 emergency planning and notification: Not Listed
SARA 302/304/311/312 hazardous chemicals: Not Listed
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard: Not Listed
CWA (Clean Water Act) 307: Not Listed
CWA (Clean Water Act) 311: Not Listed
CAA (Clean Air Act) 112 accidental release prevention: Not Listed
CAA (Clean Air Act) 112 regulated flammable substances: Not Listed
CAA (Clean Air Act) 112 regulated toxic substances: Not Listed

State regulations:

DEA List I Chemicals (Precursor Chemicals): Not Listed
DEA List II Chemicals (Essential Chemicals): Not Listed
Substances in Massachusetts: Not Listed
Dangerous substances in New Jersey: Not Listed
New York – Dangerous substances with acute effects: Not Listed
Dangerous substances in Pennsylvania – right to know: Not Listed

WHMIS (Canada):

D1A Very toxic material causing immediate and serious toxic effects

Section 16. Additional information

References:

- ANSI Z400.1, MSDS Standard, 2001.
- Manufacturer's Material Safety Data Sheet.
- 29CFR Part1910.1200 OSHA MSDS Requirements.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Federal act on the controlled products
- Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2002.
- Toxicological repertory, HSC.
- Material safety data sheet from the components.

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Elaborated by: **Toxyscan Inc., 1-866-780-0599**
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