



Safety Data Sheet (SDS) According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2014-11-24

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Version: 5

SECTION 1. Identification

Product identifier

Product No 2112
Product name Cycloheximide
UN number UN2811

Recommended use of the chemical and restrictions on use

Identified uses For Research Use Only. Not for Use in Diagnostic Procedures.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400
Website www.cellsignal.com
Email address support@cellsignal.com
Emergency telephone number **CHEMTREC** 24 hours a day, 7 days a week, 365 days a year
+1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)
080 822 1374

SECTION 2. Hazard(s) identification

Classification

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

Acute oral toxicity	Category 1
Germ cell mutagenicity	Category 2
Reproductive toxicity	Category 1B
Chronic aquatic toxicity	Category 2

GHS Label elements, including precautionary statements

**Signal Word**

Danger

Hazard statement(s)

Fatal if swallowed.

Suspected of causing genetic defects.

May damage fertility or the unborn child.

Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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 release to the environment.

Collect spillage.

IF exposed or concerned: Get medical advice/attention

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Store locked up.

Dispose of contents/container to an approved waste disposal plant.

Supplementary Hazard Information**Hazards not otherwise classified (HNOC)**

Avoid contact during pregnancy and while nursing.

SECTION 3. Composition/information on ingredients
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Formula	C ₁₅ H ₂₃ NO ₄
Molecular Weight	281.35

Chemical name	CAS No	Weight-%
Cycloheximide	66-81-9	100

SECTION 4. First-aid measures

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation occurs, get medical advice/attention.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Immediate medical attention is required.

Most important symptoms and effects, both acute and delayed

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Advice for emergency responders

General advice	Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.
Protection of first-aiders	Use personal protective equipment Avoid contact with skin, eyes and clothing

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment Water spray Foam Carbon dioxide (CO ₂) Dry powder
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Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products	Carbon oxides (COx). Nitrogen oxides (NOx).
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Explosion Data

Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None

Protective Equipment and Precautions for Firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Use personal protective equipment. For personal protection see section 8. Avoid contact with skin, eyes and inhalation of vapors. Ensure adequate ventilation.
Other information	No information available.

Environmental precautions

Should not be released into the environment. Do not let product enter drains. Keep out of waterways.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading.
Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

SECTION 7. Handling and storage

Precautions for safe handling

Wear personal protective equipment. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep container tightly closed in a dry and well-ventilated place. Store locked up.
Packaging material	No information available
Incompatible products	Strong oxidizing agents, Strong bases, Acid chlorides, Acid anhydrides

SECTION 8. Exposure controls/personal protection

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection	Tightly fitting safety goggles
Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	In case of inadequate ventilation wear respiratory protection.
Hygiene measures	Keep away from food, drink and animal feeding stuffs. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid
Appearance	Crystalline Powder
Color	Beige
Odor	No information available
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	No information available		
Melting point/freezing point	107-120 °C		
Boiling point or initial boiling point and boiling range	No information available		
Flash point	No information available		
Evaporation rate	No information available		
Flammability	No information available		
Lower explosion limit	No information available		
Upper explosion limit	No information available		
Vapor pressure	4.5 x 10 ⁻¹³	@ 25 °C	

Relative vapor density	No information available
Density and/or relative density	No information available
Solubility	No information available.
Solubility in other solvents	No information available.
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Viscosity, dynamic	No information available

Other information

Softening point	No information available
Molecular Weight	281.35
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous reactions	None under normal processing.
Hazardous polymerization	None under normal processing.

Conditions to Avoid

No information available

Incompatible Materials

Strong oxidizing agents, Strong bases, Acid chlorides, Acid anhydrides

Hazardous Decomposition Products

Nitrogen oxides (NO_x), Carbon oxides (CO_x)

SECTION 11. Toxicological information

Information on likely routes of exposure

Inhalation	There is no data available for this product.
Eye contact	Contact with eyes may cause irritation.
Skin contact	May cause irritation.
Ingestion	Very toxic if swallowed.

Information on toxicological effects

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cycloheximide	2 mg/kg (Rat)	-	-

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

Symptoms	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Irritating to eyes.
Sensitization	No information available.
Mutagenic effects	Animal experiments showed mutagenic and teratogenic effects.
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	Prolonged or repeated exposure increases the risk. Possible risks of irreversible effects.
Neurological effects	No information available.
Aspiration Hazard	No information available.

SECTION 12. Ecological information

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Cycloheximide	-	LC50 1.6 mg/L (Oryzias latipes) 48 h	-

Persistence and degradability	Not readily biodegradable. Biological degradability (28d): 1% @ 100 mg/L
Mobility	No information available
Bioaccumulation	Not likely to bioaccumulate

Other adverse effects

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Should not be released into the environment. Dispose of in accordance with local regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way. Dispose of wastes in an approved waste disposal facility.

SECTION 14. Transport information

DOT

UN number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s. (Cycloheximide)
Transport hazard class(es)	6.1
Packing group	I

IATA

UN number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s. (Cycloheximide)
Transport hazard class(es)	6.1
Packing group	I

SECTION 15. Regulatory information

North American Inventory Listing

All components of this product are NOT included on the Toxic Substance Control Act (TSCA) Inventory, DSL, or NDSL All components of this product are NOT included on DSL or NDSL

Chemical name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
Cycloheximide	Not Listed	Not Listed	Not Listed	Not Listed

Canadian Workplace Hazardous Materials Information System (WHMIS) Classification

	Class D1A - Very Toxic Materials at $\geq 1\%$ Class D2A - Very Toxic Material at $\geq 0.1\%$
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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	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Cycloheximide	Not Listed	100 lb

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
Cycloheximide	Developmental

U.S. State Right-to-Know Regulations

This product contains the following U.S. State Right to Know chemicals:

Chemical name	New Jersey	Massachusetts	Pennsylvania
Cycloheximide	Listed	Listed	Listed

U.S. FIFRA Label Information

This product does not contain any substances regulated as pesticides.

US Commerce Department - Export Administration Regulations Information

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

U.S. Drug Enforcement Administration Information

This product does not contain any substances regulated under the DEA.

SECTION 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 Safety Data Sheet