



SAFETY DATA SHEET

1. Identification

Product identifier	Humulin®
Other means of identification	
Item Code	HP8824, CS0993, CS0994, CS0995, HI0509, B02136, HI0010, HI0040, HI0080, HI0210, HI0211, HI0212, HI0213, HI0217, HI0218, HI0219, HI0240, HI0241, HI0242, HI0280, HI0310, HI0312, HI0313, HI0314, HI0317, HI0318, HI0319, HI0340, HI0412, HI0414, HI0417, HI0418, HI0419, HI0440, HI0442, HI0480, HI0500, HI0610, HI0612, HI0617, HI0619, HI0640, HI0710, HI0713, HI0714, HI0717, HI0718, HI0719, HI0740, HI0810, HI0814, HI0817, HI0818, HI0819, HI0840, HI0910, HI0914, HI0917, HI0918, HI0919, HI0940, HI1510, HI1514, HI1517, HI1518, HI1519, HI1540, HI1610, HI1614, HI1617, HI1618, HI1619, HI1640, HP8120, HP8130, HP8150, HP8160, HP8170, HP8180, HP8190, HP8720, HP8730, HP8750, HP8760, HP8770, HP8780, HP8790, HP8803, HP8804, HP8805, MS8094, MS8095, MS8305, MS8306, ND1041, ND1042, ND1043, ND1044, ND1045, ND1046, VF0103, VF0104, VF0105, VF0106, VF0107, VF0108, VF0109, VF0110, VF0111, VF0116, VF0117, VF0147, VF0148, VF0149, VF0150, VF0179, VF0183, VF0228, VF0229, VL7613, VL7614, VL7615, ZD0070
LY Number	LY41001
Recommended use	Pharmaceutical
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	Eli Lilly and Company
Address	Lilly Corporate Center Indianapolis, IN 46285 United States
Telephone	Phone: +1-317-276-2000
E-mail	lilly_msds@lilly.com
Emergency phone number	CHEMTREC: +1-800-424-9300

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Not available.
Response	Not available.
Storage	Not available.
Disposal	Not available.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Zinc-Insulin Crystals Human		11061-68-0	0.1 - 0.4

Composition comments Product contains ≤ 0.3% m-cresol and phenol. Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash before reuse.

Eye contact Immediately flush eye(s) with plenty of water. Get medical attention.

Ingestion No hazards which require special first aid measures.

Most important symptoms/effects, acute and delayed None known.

5. Fire-fighting measures

Suitable extinguishing media Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical None known.

Special protective equipment and precautions for firefighters Wear suitable protective equipment.

General fire hazards This product is an aqueous mixture which will not burn.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Avoid inhalation of mists or aerosols.

Methods and materials for containment and cleaning up Prevent runoff from entering drains, sewers, or streams. Use absorbent/adsorbent material to solidify liquids. Clean up promptly by sweeping or vacuum.

Environmental precautions Avoid release to the environment.

7. Handling and storage

Precautions for safe handling Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment.

Conditions for safe storage, including any incompatibilities Keep refrigerated Do not allow material to freeze.

8. Exposure controls/personal protection

Occupational exposure limits

Lilly (LEG) Components	Type	Value	Form
Insulin, Lispro Crystals (CAS 133107-64-9)	STEG (15min)	600 ug/m3	Respirable
	TWA (12hrs)	120 ug/m3	Respirable

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Open handling is not recommended. Use appropriate control measures such as fume hood, ventilated enclosure, local exhaust ventilation, or down-draft booth.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side shields recommended. If splash potential or dusty operations, wear goggles/faceshield.

Skin protection

Hand protection Chemical resistant gloves.

Other Chemical-resistant gloves and impermeable body covering to minimize skin contact.

Respiratory protection If the applicable occupational exposure level (OEL) is anticipated to be exceeded, wear an approved respirator with sufficient protection factor to control exposure below the OEL.

Thermal hazards Not available.

General hygiene considerations

Engineering controls should be used as the primary means to control workplace exposures. Follow good workplace hygiene practices such as washing hands after handling this material.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Clear.

Odor Odorless

Odor threshold Not available.

pH 7 - 7.8

Melting point/freezing point Not available.

Initial boiling point and boiling range > 212 °F (> 100 °C)

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Slightly soluble

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties The substance or mixture is not classified as oxidizing.

Specific gravity 1.004 - 1.008

10. Stability and reactivity

Reactivity Not water reactive.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid None under normal conditions.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on toxicological effects

Acute toxicity Not expected to be active orally.

Skin corrosion/irritation Due to lack of data the classification is not possible.

Serious eye damage/eye irritation	Due to lack of data the classification is not possible.
Respiratory or skin sensitization	
Respiratory sensitization	Due to lack of data the classification is not possible.
Skin sensitization	Rhesus monkeys, extremely weak immunogenic potential. (Insulin, Lispro Crystals) Due to inconclusive data the classification is not possible.
Germ cell mutagenicity	Results in genetic toxicity assays (in vitro): Negative (Insulin, Lispro Crystals) Due to inconclusive data the classification criteria are not met.
Carcinogenicity	One-year subcutaneous injection studies demonstrated no evidence of carcinogenicity in rats. (Insulin, Lispro Crystals) This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Based on available data, the classification criteria are not met.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	Mixed results reported in animal studies. Effects were attributed to hypoglycemia. Insulin itself is not considered a reproduction hazard. (Insulin, Lispro Crystals) Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Animal studies have reported the following effects: Decreased blood sugar levels. (subcutaneous) (Insulin, Lispro Crystals) Based on available data, the classification criteria are not met.
Aspiration hazard	No aspiration toxicity classification
Further information	Insulin is a naturally occurring hormone. May cause decreased blood sugar levels with intravenous or subcutaneous administration. Symptoms typically associated with low blood sugar may include shakiness, sweating, fatigue, hunger, irritability, confusion, and rapid heartbeat.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available for this product.
Mobility in soil	No data available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
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14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. One or more components are not listed on TSCA. CERCLA/SARA Hazardous Substances - Not applicable.
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Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-16-2016
Revision date 02-19-2019
Version # 05

List of abbreviations TWA: Time Weighted Average STEL: Short Term Exposure Limit.

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