

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Product code 4404307
Product name Hi-Di(TM) Formamide 3500 Dx Series

Company/Undertaking Identification

Life Technologies
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24 hour Emergency Response:

866-536-0631
 301-431-8585
 Outside of the U.S. +1-301-431-8585

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards identification

Australian MSDS Statement

Classified according to the criteria of Worksafe Australia. Hazardous Substance.
Non-Dangerous Goods.

GHS - Classification

Signal Word

DANGER



Health Hazard

Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 2B
Reproductive Toxicity	Category 1B

Physical Hazards

not hazardous

Hazard statements

H316 - Causes mild skin irritation

H320 - Causes eye irritation

H360 - May damage fertility or the unborn child

Precautionary statements

P308 + P313 - IF exposed or concerned: Get medical attention/advice

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P281 - Use personal protective equipment as required

P264 - Wash hands thoroughly after handling

European Union



EU Specific Hazard Statements

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R -phrase(s)

R61 - May cause harm to the unborn child

R36/38 - Irritating to eyes and skin

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S53 - Avoid exposure - obtain special instructions before use

Principle Routes of Exposure/**Potential Health effects****Eyes**

Irritating to eyes.

Skin

Irritating to skin and mucous membranes. Components of the product may be absorbed into the body through the skin.

Inhalation

May cause irritation of respiratory tract.

Ingestion

May be harmful if swallowed.

Specific effects**Carcinogenic effects**

not applicable

Mutagenic effects

not applicable

Reproductive toxicity

May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility

Sensitization

not applicable

Target Organ Effects

Eyes

Skin

Kidney

Liver

Central nervous system (CNS)

Respiratory system

Reproductive System

3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
Formamide	75-12-7	200-842-0	60-100

We recommend handling all chemicals with caution.

4. First aid measures**Skin contact**

Wash off immediately with plenty of water. In the case of skin irritation or allergic reactions see a physician.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, call a physician.

Ingestion

Rinse mouth. Consult a physician. Do not induce vomiting without medical advice.

Inhalation

Move to fresh air. Consult a physician.

Notes to physician

Treat symptomatically.

5. Fire-fighting measures

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Suitable extinguishing media

Foam. Dry powder. Dry chemical. Carbon dioxide (CO₂).
Water.

Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions

Use personal protective equipment.

Methods for cleaning up

Soak up with inert absorbent material.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

7. Handling and storage

Handling

Avoid contact with skin and eyes. Always wear recommended Personal Protective Equipment.

Storage

Keep in properly labelled containers.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	Australia STEL	Australia OEL	Australia - Skin Absorbers	Australia - OES - Peak
Formamide 75-12-7	none	10 ppm 18 mg/m ³	Skin	none

Chemical Name	New Zealand - Workplace Exposure Limits	New Zealand TWA	New Zealand STEL	New Zealand Ceiling Limits
Formamide 75-12-7	skin notation	none	none	none

Chemical Name	China OEL	China - Skin Absorbers	Hong Kong OEL
Formamide 75-12-7	none	none	none

Chemical Name	Korea OEL (CEILING)	Korea OEL (TWA)	Korea OEL (STEL)
Formamide 75-12-7	none	10 ppm 15 mg/m ³	none

Chemical Name	Taiwan OEL (TWA)	Taiwan OEL	Taiwan Ceiling Limits
Formamide 75-12-7	20 ppm 37 mg/m ³	Skin notation	none

Chemical Name	Singapore OEL (PEL)	Singapore OEL (STEL)
Formamide 75-12-7	10 ppm 18 mg/m ³	none

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

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Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection	Impervious gloves.
Eye protection	Safety glasses with side-shields.
Skin and body protection.	Lightweight protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

<u>Environmental exposure controls</u>	Prevent product from entering drains.
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9. Physical and chemical properties

General Information

Form	liquid	
Appearance	colorless	
Odor	No information available	
Boiling Point/Range	°C 210	°F 410
Melting point/range	°C 2	°F 35-36
Flash point	°C 154	°F 309-310
Autoignition temperature	°C no data available	°F no data available
Oxidizing properties	No information available.	
Water solubility	soluble	

10. Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	Strong oxidizing agents
Hazardous decomposition products	Carbon oxides, Nitrogen Oxides
polymerization	No information available.

11. Toxicological information

Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Formamide	> 5000 mg/kg (Rat)	13500 mg/kg	3900 ppm/6H

Principle Routes of Exposure/ Potential Health effects

Eyes	Irritating to eyes.
Skin	Irritating to skin and mucous membranes. Components of the product may be absorbed into the body through the skin.
Inhalation	May cause irritation of respiratory tract.
Ingestion	May be harmful if swallowed.
Reproductive toxicity	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.
Target Organ Effects	Eyes Skin Kidney Liver Central nervous system (CNS) Respiratory system Reproductive System

12. Ecological information

Ecotoxicity effects	Daphnia magna (Water flea)
Mobility	see log Pow
Biodegradation	No information available.
Bioaccumulation	No information available.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Formamide 75-12-7	Desmodesmus subspicatus EC50>500 mg/L (72 h) Desmodesmus subspicatus EC50>500 mg/L (96 h)	Daphnia magna EC50>500 mg/L (48 h)			logPow-0.82

13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

IATA

Proper shipping name	Not classified as dangerous in the meaning of transport regulations
Hazard class	none
Subsidiary Class	none
Packing group	none
UN-No	none

15. Regulatory information

International Inventories

Complies

Chemical Name	EINECS	ELINCS	ENCS	PICCS	TSCA
Formamide	Listed	-	Listed	Listed	Listed

Chemical Name	China	AICS	KECL	DSL	NDSL
Formamide	Listed	Listed	Listed	Listed	-

Korea

This product complies with applicable Korean chemical regulations.

Chemical Name	Industrial Safety and Health Act (ISHA)	Toxic Chemicals Control Act (TCCA)	Wastes Control Act	National Emergency Management Agency (NEMA) - Dangerous Substances
Formamide	Reproductive Tox. 1B 10ppm TWA 15mg/m ³ TWA Skin notation	Not Listed	Not Listed	Not Listed

16. Other information

Reason for Revision (M)SDS sections updated

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet