

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 859541REAGENT3
Product name AEC Single Solution

Company/undertaking identification

Life Technologies
5791 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies
5250 Mainway Drive
Burlington, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response:

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

Country specific Emergency Number (if available):

CHEMTREC Brazil (Rio De Janeiro) +(55)-2139581449 (português)

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

SECTION 2: Hazards identification

GHS - Classification

Signal Word

DANGER



Health hazards

Reproductive Toxicity

Category 1B

Physical hazards

Not Hazardous

Hazard Statements

H360 - May damage fertility or the unborn child

Precautionary Statements

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

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P405 - Store locked up

Principle Routes of Exposure

Potential Health Effects

eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation in susceptible persons.
inhalation	May be harmful by inhalation.
Ingestion	May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Specific effects

Carcinogenic effects	None
Mutagenic effects	None
Reproductive toxicity	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility
Sensitization	None
Target Organ Effects	Reproductive System

HMIS

Health	4 * Chronic Hazard
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
N,N-Dimethylformamide	68-12-2	200-679-5	3-7

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing and wash it before reuse. Immediate medical attention is required.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion	Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.
inhalation	Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately.

Notes to Physician

Treat symptomatically.

SECTION 5: Firefighting measures**Suitable extinguishing media**Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.**Special protective equipment for firefighters**

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures**Personal precautions**

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

Methods for cleaning up

Soak up with inert absorbent material.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

See Section 12 for more information.

SECTION 7: Handling and storage**Handling**

Always wear recommended Personal Protective Equipment. No special handling advices are necessary.

Storage

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

SECTION 8: Exposure controls/personal protection**Exposure Limits**

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
N,N-Dimethylformamide	10 ppm 30 mg/m ³	None	10 ppm	None

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

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

Wear safety glasses with side shields (or goggles).

Skin and Body Protection

Lightweight protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties**General information**

Revision date 05-May-2015
Product code 859541REAGENT3

Page 3 / 7
Product name AEC Single Solution

Form	Liquid	
Appearance	No information available	
Odor	Mixture has not been tested	
Odor Threshold	Mixture has not been tested	
Boiling point / boiling range	°C No data available	°F No data available
Melting point / melting range	°C No data available	°F No data available
flash point	°C No data available	°F No data available
Autoignition Temperature	°C No data available	°F No data available
Oxidizing properties	Mixture has not been tested	
Water solubility	soluble	
Viscosity	Mixture has not been tested	

SECTION 10: Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	No information available.
Hazardous decomposition products	No information available.
polymerization	None under normal processing.

SECTION 11: Toxicological information

Acute Toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
N,N-Dimethylformamide	No data available	No data available	No data available

Principle Routes of Exposure

Potential Health Effects

eyes	May cause eye irritation with susceptible persons
Skin	May cause skin irritation in susceptible persons
inhalation	May be harmful by inhalation
Ingestion	May be harmful if swallowed Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Carcinogenic effects	None
Mutagenic effects	None
Reproductive toxicity	May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.
Sensitization	None
Target Organ Effects	Reproductive System

SECTION 12: Ecological information

Ecotoxicity	Daphnia magna, Desmodesmus subspicatus
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
---------------	-----------------------	-----------------	------------------------------	---------------	---------

N,N-Dimethylformamide	Desmodesmus subspicatus EC50>500 mg/L (96 h)	Daphnia magna EC50=8485 mg/L (48 h) Daphnia magna EC50=7500 mg/L (48 h) Daphnia magna EC50 6800 - 13900 mg/L (48 h)			logPow-1.028
------------------------------	---	--	--	--	--------------

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

Proper Shipping Name	No dangerous good in sense of these transport regulations
Hazard Class	None
Subsidiary class	None
Packing group	None
UN-No	none

SECTION 15: Regulatory information

Component	TSCA
N,N-Dimethylformamide 68-12-2 (3-7)	Listed

US Federal Regulations

SARA 313

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackaging, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers:.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
N,N-Dimethylformamide	68-12-2	3-7	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:.

Component	CAS-No	Weight %	HAPS data
N,N-Dimethylformamide 68-12-2 (3-7)	68-12-2	3-7	Present (listed under Dimethyl formamide)

US State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
N,N-Dimethylformamide	Listed	-	Listed	Listed	Listed

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2A - Very toxic materials



This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

Reason for revision

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 SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

Revision date 05-May-2015
Product code 859541REAGENT3

Page 6 / 7
Product name AEC Single Solution

End of Safety Data Sheet