SAFETY DATA SHEET

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

Identification of the substance or mixture

Product number090025Product nameTruPure™ Formamide

Company/undertaking identification

AdvancedSeq LLC 6654 Owens Drive Pleasanton, CA 94588 +1 818 639 4362

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

SECTION 2: Hazards identification

GHS - Classification

Signal Word DANGER



<u>Health hazards</u> Specific target organ systemic toxicity (repeated exposure): Category 2

Carcinogenicity: Category 2 Reproductive Toxicity: Category 1B

Physical hazards Not Hazardous

Hazard Statements

- H360 May damage fertility or the unborn child if swallowed
- H351 Suspected of causing cancer if swallowed
- H373 May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

- P308 + P313 IF exposed or concerned: Get medical advice/attention
- P202 Do not handle until all safety precautions have been read and understood
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P201 Obtain special instructions before use
- P281 Use personal protective equipment as required
- P314 Get medical advice/attention if you feel unwell

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 cause irritation of respiratory tract. Ingestion: May be harmful if swallowed.

Specific effects

This product contains one or more substances which are classified as carcinogenic, mutagenic and/or reprotoxic.

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: Cardiovascular System, Hematopoietic System

HMIS

Heal	2 * Chronic Hazard
Flammability	1
Reactivi	0

SECTION 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.

SECTION 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, lifting lower and upper eyelids. Consult a physician. Call a physician if irritation persists.

Ingestion: Rinse mouth. Consult a physician if necessary. Do not induce vomiting without medical advice. Inhalation: Remove to fresh air. Consult a physician if necessary.

Notes to Physician: Treat symptomatically.

SECTION 5: Firefighting measures

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.

SECTION 6: Accidental release measures

Personal precautions	Avoid exposure to vapor. Avoid breathing vapors or mists. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Use personal protection equipment.		
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.		

Environmental precautions

Should not be released into the environment. Prevent product from entering drains. See Section 12 for more information.

SECTION 7: Handling and storage

- Handling: Always wear recommended Personal Protective Equipment. Avoid contact with skin, eyes or clothing. Use only in ventilated areas.
- Storage: Store locked up. Keep in properly labeled containers. Keep container tightly closed in a dry and wellventilated place. Keep away from combustible material.

SECTION 8: Exposure controls/personal protection

Exposure Limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Formamide	37 mg/m³	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.
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Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practice.

Should not be released into the environment. Prevent product from entering drains.

SECTION 9: Physical and chemical properties				
General information				
Form Appearance Odor Odor Threshold Boiling point / boiling range Melting point / melting range flash point Autoignition Temperature Oxidizing properties Water solubility Viscosity	Liquid colorless Mixture has not been tested %C 100-210 %C 0-2.5 %C >120 %C >500 Mixture has not been tested soluble Mixture has not been tested	°F 212-410 °F 32-36.5 °F >248 °F >932		

SECTION 10: Stability and reactivity

Stability: Stable under normal conditions.

Materials to avoid: Strong oxidizing agents. Acids. Bases. Sulphur trioxide. lodine.

Hazardous decomposition products: Hydrogen cyanide (hydrocyanic acid). Nitrogen oxides (NOx). Ammonia.

Carbon monoxide.

polymerization: Hazardous polymerization does not occur.

SECTION 11: Toxicological information

Acute Toxicity

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)	
Formamide	3200 mg/kg	13500 mg/kg	3900 ppm/6H	

Principle Routes of Exposure Potential Health Effects

Eyes: May cause eye irritation with susceptible person
Skin: May cause skin irritation in susceptible person
inhalation: May cause irritation of respiratory tract
Ingestion: May be harmful if swallowed
Carcinogenic effects: This product contains one or more substances which are classified as carcinogenic, mutagenic and/or reprotoxic.
Mutagenic effects: No information available
Reproductive toxicity: May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility.
Sensitization: No information available

SECTION 12: Ecological information

Ecotoxicity: Daphnia magna Mobility: see log Pow

Biodegradation: Readily biodegradable **Bioaccumulation**: Material does not bioaccumulate

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

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

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

Сотро	TS
Formamide 75-12-7(60-100)	Listed

Target Organ Effects: Cardiovascular System Hematopoietic System

US Federal Regulations

SARA 313

This product is not regulated by SARA.

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

This product does not contains HAPs.

US State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Formamide	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

Not Applicable. SDS sections updated.

For research use only.

"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"

End of Safety Data Sheet