

SAFETY DATA SHEET

Issue Date 01-Feb-2021

Revision Date 10-Aug-2021

Version 7.6

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1. IDENTIFICATION

<u>Product identifier</u> Product Name	Formazin Turbidity Standard 7500 NTU
Other means of identification	

Product Code(s) 2584202

M00982 Safety data sheet number

Recommended use of the chemical and restrictions on use **Recommended Use** Uses advised against **Restrictions on use**

Laboratory Use. Standard solution. Consumer use. For Laboratory Use Only.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

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

Respiratory sensitization	Category 1
Skin sensitization	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word Danger



Hazard statements

H317 - May cause an allergic skin reaction H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P285 - In case of inadequate ventilation wear respiratory protection

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P501 - Dispose of contents/ container to an approved waste disposal plant

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves, protective clothing, eye protection, and face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P363 - Wash contaminated clothing before reuse

Other Hazards Known

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Not applicable

Mixture

Chemical	Family
Chemical	nature

Mixture. aqueous solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane	100-97-0	10 - 13%	-
Diammonium sulfate	7783-20-2	1 - 5%	-
Formaldehyde	50-00-0	<0.1%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Ingestion	May produce an allergic reaction. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

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Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.		
Most important symptoms and effe	cts, both acute and delayed		
Symptoms	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.		
Indication of any immediate medica	I attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.		
	5. FIRE-FIGHTING MEASURES		
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.		
Specific hazards arising from the chemical	May cause sensitization by inhalation and skin contact. Product is or contains a sensitizer. May cause sensitization by skin contact.		
Hazardous combustion products	Carbon monoxide, Carbon dioxide. Nitrogen oxides. Formaldehyde.		
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.		
	6. ACCIDENTAL RELEASE MEASURES		
U.S. Notice	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.		
Personal precautions, protective ec	uipment and emergency procedures		
Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.		
Other Information	Refer to protective measures listed in Sections 7 and 8.		
Environmental precautions			
Environmental precautions	Prevent further leakage or spillage if safe to do so.		
Methods and material for containme	ent and cleaning up		
Methods for containment	Prevent further leakage or spillage if safe to do so.		
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.		
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.		

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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Provide extract ventilation to points where emissions occur. Remove contaminated clothing and shoes. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities		
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.	
Flammability class	Not applicable	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Engineering Controls

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]de	TWA: 1 mg/m ³ inhalable	NDF	NDF
cane	fraction and vapor		
CAS#: 100-97-0			
Formaldehyde	STEL: 0.3 ppm	TWA: 0.75 ppm	IDLH: 20 ppm
CAS#: 50-00-0	TWA: 0.1 ppm	(vacated) TWA: 3 ppm	Ceiling: 0.1 ppm 15 min
		(vacated) STEL: 10 ppm	TWA: 0.016 ppm
		(vacated) Ceiling: 5 ppm	
		STEL: 2 ppm	

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment		
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapors/dusts/aerosols.	
Hand Protection	Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.	
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Skin and body protection	Wear suitable protective clothing.	
General Hygiene Considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use.	

Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.
Thermal hazards	None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance	Turbid solution	Liquid		Color	white	
Odor	aqueous solution Odorless			Odor threshold	No data avai	lable
Property_			<u>Values</u>			Remarks • Method
Molecular weight	:		No data availat	ble		
рН			6.53			@ 20 °C
Melting point/free	ezing point		No data availat	ble		
Boiling point / bo	iling range		100 °C / 21	2 °F		
Evaporation rate			0.97 (water = 1)		
Vapor pressure			No data availat	ble		
Relative vapor de	ensity		0.62			
Specific gravity (water = 1 / air = 1)		1.025			
Partition Coeffici	ent (n-octanol/wate	er)	Not applicable			
Soil Organic Carl Coefficient	bon-Water Partition	ı	Not applicable			
Autoignition tem	perature		No data availat	ble		
Decomposition to	emperature		No data availat	ble		
Dynamic viscosit	ÿ		No data availat	ble		
Kinematic viscos	ity		No data availat	ble		

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other information

Metal Corrosivity

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Steel Corrosion Rate Aluminum Corrosion Rate

0.13 mm/yr / 0.01 in/yr 0.02 mm/yr / 0 in/yr

Volatile Organic Compounds (VOC) Content

See ingredients information below

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]de cane	100-97-0	Not applicable	Х
Diammonium sulfate	7783-20-2	No data available	-
Formaldehyde	50-00-0	No data available	Х

Explosive properties

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	No data available
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

EN / AGHS

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Ammonia. Carbon monoxide. Formaldehyde. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause sensitization in susceptible persons.					
Eye contact	No known effect based on information supplied.					
Skin contact	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.					
Ingestion	May cause additional affects as listed under "Inhalation".					
Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives.					

Acute toxicity

Based on available data, the classification criteria are not met

Product Acute Toxicity Data

No data available.

Ingredient Acute Toxicity Data Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Diammonium sulfate (1 - 5%) CAS#: 7783-20-2	Rat LD ₅₀	2840 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
Formaldehyde (<0.1%) CAS#: 50-00-0	Rat LD ₅₀	100 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Formaldehyde (<0.1%) CAS#: 50-00-0	Rabbit LD ₅₀	270 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Formaldehyde (<0.1%) CAS#: 50-00-0	Rat LC₅₀	0.578 mg/L	4 hours	None reported	LOLI

Unknown Acute Toxicity

0.001% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	OECD Test 404: Acute Dermal Corrosion/Irritation	Rabbit	500 mg	4 hours	Not corrosive or irritating to skin	ECHA (The European Chemicals Agency)
Diammonium sulfate (1 - 5%) CAS#: 7783-20-2	Standard Draize Test	Rabbit	800 mg	20 hours	Not corrosive or irritating to skin	ECHA (The European Chemicals Agency)
Formaldehyde (<0.1%) CAS#: 50-00-0	Standard Draize Test	Human	0.150 mg	72 hours	Corrosive to skin	RTECS (Registry of Toxic Effects of Chemical Substances)

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0		Rabbit	100 mg	24 hours	Not corrosive or irritating to eyes	ECHA (The European Chemicals Agency)
Diammonium sulfate (1 - 5%) CAS#: 7783-20-2	Standard Draize Test	Rabbit	0.050 mL	None reported	Not corrosive or irritating to eyes	ECHA (The European Chemicals Agency)
Formaldehyde	Rinse Test	Human	1 ppm	6 minutes	Corrosive to eyes	RTECS (Registry of

(<0.1%) CAS#: 50-00-0					Toxic Effects of Chemical Substances)
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Respiratory or skin sensitization

May cause sensitization by inhalation. May cause sensitization by skin contact.

Product Sensitization Data

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	OECD Test No. 406: Skin Sensitization	Guinea pig	Confirmed to be a skin sensitizer	ECHA (The European Chemicals Agency)
Formaldehyde (<0.1%) CAS#: 50-00-0	Patch test	Human	Confirmed to be a skin sensitizer	ERMA (New Zealands Environmental Risk Management Authority)

Respiratory Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	Based on human experience	Human	Confirmed to be a respiratory sensitizer	HSDB (Hazardous Substances Data Bank)
Formaldehyde (<0.1%) CAS#: 50-00-0	IgE Specific Immune Response Test	Guinea pig	Confirmed to be a respiratory sensitizer	CICAD (Concise International Chemical Assessment Documents)

STOT - single exposure

Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Single Exposure Data No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Diammonium sulfate (1 - 5%) CAS#: 7783-20-2	Man TD∟₀	1500 mg/kg	None reported	Gastrointestinal Gas	RTECS (Registry of Toxic Effects of Chemical Substances)
Formaldehyde (<0.1%) CAS#: 50-00-0	Human LD⊾o	70 mg/kg	None reported	Gastrointestinal Kidney, Ureter, or Bladder Liver Other changes Ulcerated stomach Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Repeat Dose Data No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	Rat NOAEL	80 mg/kg	None reported	None reported	Vendor SDS

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0		350 mg/m ³	21 days	Kidney, Ureter, or Bladder Urine volume decreased or anuria Nutritional and Gross Metabolic Weight loss or decreased weight gain Biochemical Enzyme inhibition, induction, or change in blood or tissue levels	RTECS (Registry of Toxic Effects of Chemical Substances)
				(true cholinesterase)	

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Formaldehyde (<0.1%) CAS#: 50-00-0	Human TC∟₀	0.017 mg/L	0.5 days	Eye Lungs, Thorax, or Respiration Lacrimation Other changes	RTECS (Registry of Toxic Effects of Chemical Substances)

Carcinogenicity

Based on available data, the classification criteria are not met.

Product Carcinogenicity Data

No data available.

Ingredient Carcinogenicity Data

Test data reported below.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
1,3,5,7-Tetraazatricyclo[3.	100-97-0	-	-	-	-
3.1.1(3,7)]decane					
Diammonium sulfate	7783-20-2	-	-	-	-
Formaldehyde	50-00-0	A1	Group 1	Known	Х

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)	Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)	Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of	X - Present
Labor)	

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Formaldehyde (<0.1%) CAS#: 50-00-0	Rat	15 mg/L	78 weeks	Olfaction Tumors	RTECS (Registry of Toxic Effects of Chemical Substances)

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product Germ Cell Mutagenicity invitro Data

No data available.

Ingredient Germ Cell Mutagenicity invitro Data

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	Cytogenetic analysis	Human HeLa Cell	1 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity invivo Data

No data available.

Ingredient Germ Cell Mutagenicity invivo Data

Test data reported below.

Oral Exposure Route

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
1,3,5,7-Tetraazatricyc lo[3.3.1.1(3,7)]decan e (10 - 13%) CAS#: 100-97-0	Dominant lethal test	Mouse	25000 mg/kg	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Inhalation (Vapor) Exposure Route

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Formaldehyde (<0.1%) CAS#: 50-00-0	Micronucleus test	Human	.000985 mg/L	8.5 years	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical

			Substances)
			· /

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product Reproductive Toxicity Data

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Formaldehyde	Rat	40 mg/L	14 days	Effects on Embryo or Fetus	RTECS (Registry of Toxic
(<0.1%)	TCLO	_		Fetotoxicity (except death e.g.	Effects of Chemical
CAS#: 50-00-0				stunted fetus)	Substances)

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, the classification criteria are not met.

Unknown aquatic toxicity

0.001 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Product Ecological Data

Aquatic Acute Toxicity No data available.

Aquatic Chronic Toxicity No data available.

Ingredient Ecological Data

Aquatic Acute Toxicity

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Diammonium sulfate (1 - 5%) CAS#: 7783-20-2	96 hours	Oncorhynchus mykiss	LC ₅₀	36.7 mg/L	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
Formaldehyde (<0.1%) CAS#: 50-00-0	96 hours	Morone saxatilis	LC ₅₀	6.7 mg/L	PEEN (Pan European Ecological Network)

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Diammonium sulfate (1 - 5%)	48 Hours	None reported	LC ₅₀	14 mg/L	GESTIS (Information System on Hazardous Substances of the

CAS#: 7783-20-2					German Social Accident Insurance)
Formaldehyde (<0.1%) CAS#: 50-00-0	48 Hours	Daphnia pulex	EC ₅₀	5.8 mg/L	PEEN (Pan European Ecological Network)

Aquatic Chronic Toxicity No data available.

Persistence and degradability

Product Biodegradability Data No data available.

Product Bioaccumulation Data No data available.

Partition Coefficient (n-octanol/water)

Mobility

Soil Organic Carbon-Water Partition Coefficient

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Not applicable

Not applicable

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
US EPA Waste Number	Not applicable, U122

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Formaldehyde	U122	Included in waste	-	U122
50-00-0		streams: K009, K010,		
		K038, K040, K156, K157		

14. TRANSPORT INFORMATION			
DOT	Not regulated		
TDG	Not regulated		
IATA	Not regulated		
IMDG_	Not regulated		
Note:	No special precautions necessary.		
Additional information			

15. REGULATORY INFORMATION

National Inventories	
TSCA	Complies
DSL/NDSL	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Does not comply
TCSI	Complies
AICS	Complies
NZIOC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Diammonium sulfate (CAS #: 7783-20-2)	1.0
Formaldehyde (CAS #: 50-00-0)	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (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)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Formaldehyde 50-00-0	100 lb	-	-	Х
	•	•		•

<u>CERCLA</u>

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Formaldehyde	100 lb	100 lb	RQ 100 lb final RQ
50-00-0			RQ 45.4 kg final RQ

U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

Chemical name	U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues
Formaldehyde (<0.1%) CAS#: 50-00-0	Release - Toxic (solution)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Formaldehyde (CAS #: 50-00-0)	Carcinogen

WARNING: This product can expose you to chemicals including Formaldehyde, which is known to the State of California to cause cancer.

For more information, go to <u>http://www.P65Warnings.ca.gov</u>

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
1,3,5,7-Tetraazatricyclo[3.3.1.1(Х	-	-
3,7)]decane			
100-97-0			
Diammonium sulfate	-	Х	Х
7783-20-2			
Formaldehyde	X	X	X
50-00-0			

U.S. EPA Label Information

Chemical name	FIFRA	FDA
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane	180.0910	-
Diammonium sulfate	180.0910	21 CFR 184.1143

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments None

Additional information

Global Automotive Declarable Substance List (GADSL)

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
1,3,5,7-Tetraazatricyclo[3.3.1.1(3,7)]decane 100-97-0	Declarable Substance (FI)	0.1 %

Formaldehyde	Declarable Substance (FI)	0 %
50-00-0	Prohibited Substance (FI)	0.1 %
	Declarable Substance (LR)	
	Prohibited Substance (LR)	

NFPA and HMIS Classifications

NFP	A Health haz	zards - 2 Flam	mability - 0	Instability - 0	Physical and chemical properties -
HMI	S Health haz	zards - 2 Flamı	mability - 0 Phy	nysical hazards - 0	Personal protection - X - I

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	Immediately Dangerous to Life or Health
	ACGIH (American Conference of Governmental Industrial Hygienists)
NDF	no data

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)		STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowab	le Concentration	Ceiling	Ceiling Limit Value
X	Listed		Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN* RSP+ C M	Skin designation Respiratory sensit Carcinogen mutagen	ization	SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant
Prepared By		Hach Product Compliance	ce Department	
Issue Date		01-Feb-2021		
Revision Date		10-Aug-2021		
Revision Note		None		

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet