Safety Data Sheet (SDS)

Revision Number: 3.0		Last updated March 12, 2021	
1. Product and Company Ider	tification		
Product Name:	0.5M HBTU	0.5M HBTU/HOBT in DMF	
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Catalog Number	AS-27217	AS-27217	

2. Hazards Identification

Emergency Overview: We do recommend handling all chemicals with caution. Use proper protective equipment when handling chemicals. To our knowledge, the hazards of this material have not been thoroughly investigated.

GHS Hazard Classification:

Flammable liquids (Category 3) Acute toxicity, Oral (Category 5) Acute toxicity, Inhalation (Category 3) Acute toxicity, Dermal (Category 4) Skin irritation (Category 3) Eye irritation (Category 2A) Reproductive toxicity (Category 1B)

GHS Signal Words: DANGER

GHS Hazard S	ymbol/Pictogram:
$\mathbf{\mathbf{\forall}}$	
GHS Hazard S	'tatements:
	nable liquid and vapour. De harmful if swallowed.
	ful in contact with skin. s mild skin irritation.
H319 Cause	s serious eye irritation.
H331 Toxic	if inhaled. H360 May damage fertility or the unborn child
	ationary Statements:
P201 P261	Obtain special instructions before use. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing.
P305 + P351 +	
P311	Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/ physician.
OX	th Effects for: inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give ygen. Good hygiene practice requires that exposure be kept to a minimum and that suitable control easures be used in an occupational setting.
Ingestion: If	swallowed, wash out mouth with water provided person is conscious. Call a physician.
Skin: In	a case of contact, immediately wash skin with soap and copious amount of water.
Eyes: In	a case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.
Chronic Expos	ures: No information available. We recommend limiting prolonged exposure.
Target Organs	: No information available
HMIS Classific	cation
	Health hazard: 2
	Flammability: 2 Regativity Hagard: 0
	Reactivity Hazard: 0

NFPA Rating

Health hazard: 3 Fire: 3 Reactivity Hazard: 1

3. Composition / Information on Ingredients

Ingredients/Components:

Chemical Name	CAS Number	Concentration
N – Hydroxybenzotriazole Hydrate	123333-53-9	3% in one bottle
N,N-Dimethylformamide	68-12-2	97% in one bottle
2-(1H-Benzotriazole-1-yl)-1,1,3,3-		
tetramethyluronium hexafluorophosphate	94790-37-1	3% in one bottle

4. First Aid Measures

Inhalation:	If inhaled, move to fresh air. If not breathing, give artificial respiration.	
Ingestion:	If swallowed, wash mouth with water if the person is conscious. Call a physician.	
Skin:	In case of skin contact, flush with plenty amount of water at least 15 minutes.	
Eyes:	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure	
	adequate flushing by separating the eyelids with fingers. Call a physician	

5. Fire Fighting Measures

Conditions of flammability:	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot
	surface. No smoking.
Hazardous combustion products:	Hazardous decomposition products formed under fire conditions
	Carbon oxides, nitrogen oxides (NOx)
Special firefighting procedures:	Wear self-contained breathing apparatus and protective clothing to
	prevent contact with skin and eyes
Unusual fire and explosions hazards:	Emits toxic fumes under fire conditions

6. Accidental Release Measures

Spill response Remove all ignition sources.		
	Clean up all spills immediately.	
	Avoid contact with skin and eyes.	
	Control personal contact by using protective equipment.	
	Use dry clean up procedures and avoid generating dust.	
	Place in a suitable, labeled container for waste disposal	
Containment	Avoid all personal contact, including inhalation.	
	Wear protective clothing when risk of exposure occurs.	
Use in a well-ventilated area.		
	DO NOT enter confined spaces until atmosphere has been checked.	
	DO NOT allow material to contact humans, exposed food or food utensils.	

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	Avoid contact with incompatible materials.	
	When handling, DO NOT eat, drink or smoke.	
	Keep containers securely sealed when not in use.	
	Avoid physical damage to containers.	
	Always wash hands with soap and water after handling.	
	Use good occupational work practice.	
	Empty containers may contain residual dust which has the potential to accumu	
	following settling. Such dusts may explode in the presence of an appropriate	
	ignition source.	
	Do NOT cut, drill, grind or weld such containers	
PPE	Use personal protective equipment	

7. Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

8. Exposure Controls / Personal Protection

Engineering controls	Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by
	mutual friction.
	Exhaust ventilation should be designed to prevent accumulation and re-circulation of particulates in the workplace.
	If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:
	(a): particle dust respirators, if necessary, combined with an absorption cartridge;
	 (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks
	Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
	Powder handling equipment such as dust collectors, dryers and mills may require
	additional protection measures such as explosion venting.
	Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently
	remove the contaminant.
PPE	Respiratory protection
	Where risk assessment shows air-purifying respirators are appropriate use a full-face
	respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator
	cartridges as a backup to engineering controls. If the respirator is the sole means of
	protection, use a full-face supplied air respirator. Use respirators and components tested
	and approved under appropriate government standards such as NIOSH (US) or CEN
	(EU).
	Hand protection
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.
	Dispose of contaminated gloves after use in accordance with applicable laws and good
	laboratory practices. Wash and dry hands.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved
under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing,
The type of protective equipment must be selected according to the concentration and
amount of the dangerous substance at the specific workplace.
Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately
after handling the product

9. Physical and Chemical Properties

Physical State	liquid
Odour	Not available
Solubility in Water	Not available
Specific Gravity	Not available
рН	Not available
Boiling Point	N/A
Melting Point	Not available
Flash Point	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A

10. Stability and Reactivity

Thermal Decomposition	No data available
Dangerous Products of Decomposition	No data available
Dangerous Reactions	COx, NOx when burned

Keep container tightly closed in a dry well-ventilated place. Store in 4°C refrigerator.

11. Toxicological Information

RTECS Number	N/A
Toxicity	No information available.
Health Hazards	Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
Potential Hazards	Not available
Carcinogenicity:	No significant acute toxicological data identified
OSHA Permissible Exposure Limit(PEL) Data	N/A
ACGIH Threshold Limit Values (TLV)	N/A

Reproductive Toxicity:

No information available

12. Ecological Information

No information available.

13. Disposal Considerations

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

14. Transport Information

Hazard Class	3
Identification Number	UN number 2265
Packing Group	III
Proper Shipping Name (DOT)	N,N-Dimethylformamide mixture

15. Regulatory Information

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

OSHA Hazards

Combustible Liquid, Harmful by skin absorption., Irritant, Teratogen

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

N,N-Dimethylformamide CAS-No.: 68-12-2 Revision Date: 2007-07-01

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

16. Other Information

It is not intended for food, drug, household, agricultural or cosmetic use. A technically qualified individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.