Safety Data Sheet (SDS)

Revision Number:	1.1	Last updated: April 2015
1. Product and Co	ompany Identification	
Manufacturer/Supp	nlier:	AnaSpec, Inc.
ιναπαμαστατέτ/ Βαρμ	nier.	1 • • • • • • • • • • • • • • • • • • •
		www.anaspec.com 34801 Campus Drive
		Fremont, CA 94555
		Tel: 510-791-9560
		Fax: 510-791-9572
		Email: service@anaspec.com
Catalog Number		AS-72160
Unit Size		1 kit
A II	p+ 4+	10 222
2. Hazards Identi		
GHS Hazard Class GHS Physical Haz	sification:	
OHS I nysicai Haz	Component A:	Not Applicable
		Flammable liquid (Category 4)
Component		Skin irritation (Category 2), Eye irritation (Category 2A), Specific target
		single exposure (Category 3)
		Skin irritation (Category 2), Eye irritation (Category 2A), Specific target
	-	single exposure (Category 3)
	Component E: 1	
GHS Health and E	nvironmental Hazards	s
	Component A: I	rritant to eyes and skin
	Component B: In	rritant to eyes and skin
		rritant to eyes and skin, may cause respiratory irritation
	1	rritant to eyes and skin, may cause respiratory irritation
	Component E: 1	Irritant to eyes and skin
GHS Signal Words		
	Component A:	
	Component B:	
	Component C:	
	Component D:	
	Component E: 1	Not Applicable
GHS Hazard State		
	Component A:	11
	Component B:	H227 Combustible liquid

Component C: H315 Causes skin irritation

H319 Causes serious eye irritation H335 May cause respiratory irritation

Component D: H315 Causes skin irritation

H319 Causes serious eye irritation H335 May cause respiratory irritation

Component E: Not Applicable

GHS Precautionary Statements:

Component A: - None Component B: - None

Component C: - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Component D: - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Component E: None

HMIS Classification:

Component A:	Component B:	Component C:	Component D:	Component E:
Health hazard: 0	Health hazard: 0	Health hazard: 2	Health hazard: 2	Health hazard: 1
Flammability: 0	Flammability: 2	Flammability: 0	Flammability: 0	Flammability: 0
Physical hazards: 0				

NFPA Rating:

Component A:	Component B:	Component C:	Component D:	Component E:
Health hazard: 0	Health hazard: 0	Health hazard: 2	Health hazard: 2	Health hazard: 0
Fire: 0	Fire: 2	Fire: 0	Fire: 0	Fire: 0
Reactivity hazard: 0				

3. Composition / Information on Ingredients

Ingredients/Components:

Chemical Name:	Description	CAS Number:	
Component A	AMC substrate	None	
Component B	Contains DMSO	67-68-5	
Component C	Proprietary	NA	
Component D	Proprietary	NA	
Component E	Leupeptin	24365-47-7	

4. First Aid Measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Component A

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a

physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Eyes: Flush eyes with water as a precaution.

Component B

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a

physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Eyes: Flush eyes with water as a precaution.

Component C

Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.Skin: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Component D

Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.Skin: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Component E

Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician. *Ingestion:* Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5. Fire Fighting Measures

Extinguishing media:	Component A: Not applicable.
	Component B: For small fires, use alcohol resistant foam, dry chemical, or
	carbon dioxide. For large fires, use water spray from a safe distance
	Component C: Use alcohol-resistant foam, dry chemical, carbon dioxide, or
	water spray.
	Component D: Use alcohol-resistant foam, dry chemical, carbon dioxide, or
	water spray.
	Component E: Not applicable
Special firefighting procedures:	Component A: Not applicable.
	Component B: Fire fighters should wear positive pressure self-contained
	breathing apparatus (SCBA) and full turnout gear.
	Component C: Wear self-contained breathing apparatus if necessary.
	Component D: Wear self-contained breathing apparatus if necessary.
	Component E: Not applicable
Unusual fire and explosions hazards:	Component A: Not applicable.
	Component B: Combustible liquid and vapor. Vapors are heavier than air
	and may travel to a source of ignition and flash back. Vapors can spread
	along the ground and collect in low or confined areas. Hazardous carbon
	oxides and sulphur oxides formed under fire conditions.
	Component C: Carbon oxides and nitrogen oxides formed under fire conditions.
	Component D: Carbon oxides and nitrogen oxides formed under fire
	conditions.

6. Accidental Release Measures

Containment and spill	Component A: Sweep up the liquid. Do not let material enter drains.
response	Component B: Immediately contact emergency personnel. Prevent further leakage or
	spillage if safe to do so. Avoid breathing vapors or mist. Remove all sources of
	ignition and provide ventilation. Collect with an electrically protected vacuum cleaner,
	by wet-brushing, or by absorbing with vermiculite, sand or earth, and place in
	appropriate container for disposal. Do not let material enter drains.
	Component C: Wear personal protective equipment. Do not let material enter drains
	or discharge into the environment.
	Component D: Wear personal protective equipment. Do not let material enter drains
	or discharge into the environment.
	Component E: Sweep up the liquid. Do not let material enter drains.
PPE	Use personal protective equipment

7 . Handling and Storage

Component A

Handling: Avoid contact with skin and eyes. Keep container tightly closed.

Component B

Handling: Wash thoroughly after handling. Remove and wash any contaminated clothing. Keep container tightly closed and avoid contact with eyes, skin, and clothing. Use with adequate ventilation and avoid ingestion and inhalation. Keep away from heat and flame.

Storage: Store in a tightly closed container away from moisture, heat, and flame. Store away from incompatible substances. Storage under a nitrogen blanket has been recommended.

Component C

Handling: Avoid contact with skin and eyes.

Storage: Store in a tightly closed container in a dry well-ventilated area.

Component D

Handling: Avoid contact with skin and eyes.

Storage: Store in a tightly closed container in a dry well-ventilated area.

Component E

Handling: Avoid contact with skin and eyes. Keep container tightly closed.

8. Exposure Controls / Personal Protection

Engineering controls	Component A, B, C, D and E: Facilities storing and using this material should be
	equipped with a safety shower and eyewash station. Adequate ventilation should also be
	present.
PPE	Component A
	Wear appropriate chemical-resistant gloves, safety googles and protective clothing.
	Component B
	Respiratory System: A respiratory protection program that meets OSHA's 29 CFR 1910.134
	and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever
	workplace conditions warrant respirator use.
	Skin and Body: Wear appropriate work uniform or laboratory coat to prevent skin exposure.
	Hands: Use chemical resistant, impervious gloves. Appropriate techniques should be used
	to remove potentially contaminated gloves.
	Eyes: Wear chemical splash goggles.
	Component C
	Respiratory System: Use respirators and components tested and approved under appropriate
	government standards such as NIOSH (US) or CEN (EU).
	Skin and Body: Wear appropriate work uniform or laboratory coat to prevent skin exposure.
	Hands: Use chemical resistant, impervious gloves. Appropriate techniques should be used
	to remove potentially contaminated gloves.
	Eyes: Handle with face shield and safety glasses.
	Component D
	Respiratory System: Use respirators and components tested and approved under appropriate
	government standards such as NIOSH (US) or CEN (EU).
	Skin and Body: Wear appropriate work uniform or laboratory coat to prevent skin exposure.
	Hands: Use chemical resistant, impervious gloves. Appropriate techniques should be used
	to remove potentially contaminated gloves.
	Eyes: Handle with face shield and safety glasses.
	Component E
	Wear appropriate chemical-resistant gloves, safety googles and protective clothing.

9. Physical and Chemical Propert	
Physical State	Liquid
Odo	Not determined
Solubility in Water	Soluble
Specific Gravity	Not determined
pH	Component C –8.8
	Component D -8.8
Boiling Point	Not determined
Melting Point	Not determined
Flash Point	Not determined
Vapor Pressure:	Not determined
Vapor Density:	Not determined Not determined
tupor Bensuly.	Not determined
10. Stability and Reactivity	
Thermal Decomposition	Not applicable
Therman Decomposition	
Dangerous Products of Decomposition	Not Applicable
Dangerous Reactions	Not Applicable
11.Toxicological Information	
RTECS Number	Component A:NA
	Component B: PV6210000
	Component C: N/A
	Component D: NA
Toxicity	Component E: NA Component A
Toxicity	Not available
	Component B contains DMSO
	For DMSO
	Oral LD50
	LD50 Oral - rat - 14,500 mg/kg
	Inhalation LC50
	LC50 Inhalation - rat - 4 h - 40250 ppm
	Dermal LD50
	LD50 Dermal - rabbit - > 5,000 mg/kg
	Component C Oral LD50
	LD50 Oral - rat - 5,900 mg/kg
	Component D
	Oral LD50
	LD50 Oral - rat - 5,900 mg/kg
	Component E
	Not available
Health Hazards	No data available
Potential Hazards	Potential Health Effects Component C and Component D

	Skin May cause skin irritation. May be harmful if absorbed through skin.
	Eyes Causes eye irritation.
	Ingestion May be harmful if swallowed
Carcinogenicity:	No data available
OSHA Permissible Exposure Limit(PEL)	No data available
Data	
ACGIH Threshold Limit Values (TLV)	No data available

12. Ecological Information

Component A

No data available

Component B (contains DMSO)

For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia pulex (Water flea) - 27,500 mg/l

Toxicity to algae EC50 - Lepomis macrochirus (Bluegill) - > 400,000 mg/l - 96 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

Component C

No data available

Component D

No data available

Component E

No data available

13. Disposal Considerations

For Component A

Contaminated packaging

Dispose of as unused product.

Component B (contains DMSO)

For Dimethyl sulfoxide (DMSO) CAS-No. 67-68-5

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Component C and Component D

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material

Contaminated packaging

Dispose of as unused product.

For Component E

Contaminated packaging

Dispose of as unused product.

4. Transport Information: IATA Exempted quantities labeling		
UN Number	N/A	
Hazard Class	N/A	
Identification Number	N/A	
Packing Group	N/A	
Proper Shipping Name (DOT)	N/A	

California Proposition 65.	Component A: Not listed
California Proposition 65:	Component A : Not listed Component B : Not listed
	Component C: Not listed
	Component D : Not listed Component E : Not listed
LIC TCCA (Taula Calenton a Cantual Act).	*
US TSCA (Toxic Substance Control Act):	Component A: Not listed
	Component B: Listed
	Component C: Listed
	Component D: Listed
LIC CERCIA (Communication Function and I Reserved	Component E: Not Listed
US CERCLA (Comprehensive Environmental Response,	Component A: Not listed
Compensation, and Liability Act:	Component B : 261.33 8(d).
	Component C: Not listed
	Component D : Not listed
US SARA Title III	Component E: Not listed
US SAKA TILIE III	Component A
	SARA 302 components: N/A
	SARA 313 components: N/A
	SARA 311/312 Hazards: N/A
	Component B
	SARA 302 components: N/A
	SARA 313 components: N/A
	SARA 311/312 Hazards: Fire Hazard, Chronic Health Hazard
	Component C
	SARA 302 components: N/A
	SARA 313 components: N/A
	SARA 311/312 Hazards: Acute Health Hazard
	Component D
	SARA 302 components: N/A
	SARA 313 components: N/A
	SARA 311/312 Hazards: Acute Health Hazard
	Component E
	SARA 302 components: N/A
	SARA 313 components: N/A
	SARA 311/312 Hazards: N/A
US Clean Air Act:	Component A, B, C, D and E
CS C10441 1 44 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Listed under Hazardous Air Pollutants: Not listed
	Listed under Class 1 Ozone Depletors: Not listed
	Listed under Class 2 Ozone Depletors: Not listed
	Enter white Cause 2 Ozone Depictors, 1101 usica
US Clean Water Act:	Community A. B. C. Donald F.
OS Cieun water Act.	Components A, B, C, D and E
	Listed under "Hazardous Substances": Not listed
	Listed under "Priority Pollutants": Not listed Listed under "Toxic Pollutants": Not listed
	Listed under Toxic Politiants . Not listed

Component A:	Component 1	B:	Component C:	Component D:	Component E:
	Pennsylvania	ì	Pennsylvania	Pennsylvania	
N/A	Revision Da	te 2007-03-01	Revision Date N/A	Revision Date N/A	N/A
	New Jersey		New Jersey	New Jersey	
N/A	Revision Da	te 2007-03-01	Revision Date N/A	Revision Date N/A	N/A
N/A	N/A		N/A	N/A	N/A
European/Internation	al Regulations:				
	Component A	Component B	Component C	Component D	Component E
	_	=	=	_	_

European/International	Component A	Component B	Component C	Component D	Component E
EC EINICS	N/A	200-664-3	N/A	N/A	N/A
EC Risk statements	N/A	36/37/38	36/37/38	36/37/38	N/A
WGK	N/A	1	1	1	N/A
Canada- DSL/NDSL	Not listed	Listed	Listed	Listed	Not listed
Canada- WHMIS classification	N/A	D2B	D2B	D2B	N/A
Canada- Canadian Ingredient Disclosure List	Not listed	Listed	Not listed	Not listed	Not listed

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.