D-54091 D-54091-001 Nov. 10, 2015 Nov. 10, 2015 Nov. 10, 2015

MATERIAL SAFETY DATA SHEET (SDS)

Applies to part numbers: R-03725-B10 R-03725-B50

	Section 1 Product and company identification	
Product name:	DMSO	
Supplier:	Advansta Inc.	
Address:	1505 Adams Dr., Ste. B1	
	Menlo Park, CA 94025	
Phone:	650-325-1980	
Section 2	Composition/Information on Ingredients	

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Ingredient	CAS #	%
DMSO	67-68-5	≥90%

Section 3 Hazards identification

EMERGENCY OVERVIEW:

Harmful if swallowed. May cause eye and skin irritation. May cause respiratory tract irritation. May be harmful if absorbed through skin. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

HMIS RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

NFPA RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
INHALATION EXPOSURE	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
DERMAL EXPOSURE	In case of contact, immediately wash skin with soap and copious amounts of water.
EYE EXPOSURE	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.

Section 5 -	Fire	Fighting	Measures
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FLASH POINT	89°C (192°F) closed cup
AUTOIGNITION TEMP	300-302°C (572-575°F)
FLAMMABILITY	N/A
EXTINGUISHING MEDIA	
Suitable:	Water spray, carbon dioxide, foam and dry powder
Not suitable:	Not known
FIREFIGHTING	
Protective Equipment:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6 - Accidental Release Measures

METHODS FOR CLEANING UP: Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

User Exposure:	Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
STORAGE	
Suitable:	Keep tightly closed. Store at room temperature.
Section 8 - Exposure Controls / PPE	
PERSONAL PROTECTIVE EQUIPMENT	
Respiratory:	Respiratory protection not required. If desired, use multi-purpose respirator.
Hand:	Protective gloves.
Eye:	Chemical safety goggles.
GENERAL HYGIENE MEASURES:	Wash thoroughly after handling.
Section 9 - Physical and chemical pro	<u>pperties</u>
APPEARANCE PHYSICAL STATE:	Clear liquid
Section 10 - Stability and Reactivity	
STABILITY:	Stable under recommended storage conditions
Materials to Avoid:	Strong oxidizing agents, organic and inorganic acid chlorides, alkali metals, hydbromic acid, acidic solutions of alkali bromides
HAZARDOUS DECOMPOSITION PRODUCTS	
Hazardous Decomposition Products:	Carbon oxides, nitrogen oxides.
HAZARDOUS POLYMERIZATION	
Hazardous Polymerization:	Will not occur.

Section 11 - Toxicological Information

ROUTE OF EXPOSURE	
Skin Contact:	Causes skin irritation.
Skin Absorption:	May be harmful if absorbed through the skin.
Eye Contact:	Causes eye irritation.
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	Harmful if swallowed.
SIGNS AND SYMPTOMS OF EXPOSURE	

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

No known significant effects or critical hazards.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION: Observe all federal, state, and local environmental regulations. Within the present knowledge of the supplier, this product is not regarded as hazardous waste.

Section 14 - Transport Information

DOT		
	Proper Shipping Name:	None
ΙΑΤΑ	Non-Hazardous for Transport:	This substance is considered to be non-hazardous for transport.
	Non-Hazardous for Air Transport:	Non-hazardous for air.

Section 15 - Regulatory Information

OSHA Hazards:

Section 16 Other information

Target organ effect. Harmful by ingestion. Toxic by skin absorption. Irritant.

For R&D use only. Not for drug, household or other uses.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

D-54085 D-54085-001 July 28, 2015 July 28, 2015 July 28, 2015

MATERIAL SAFETY DATA SHEET (SDS)

≤15

Applies to part numbers: R-03116-125 R-03116-015

Section 1 Product and of identification			
Product name:	Dye Solution 490		
Supplier:	Advansta Inc.		
Address:	1505 Adams Dr., Ste. B1		
	Menlo Park, CA 94025		
Phone:	650-325-1980		
Section 2	Composition/Information on Ingredients		
Ingredient		CAS #	%
DMSO		67-68-5	≥90%

Proprietary Reagent

Section 3 Hazards identification

EMERGENCY OVERVIEW:

Harmful if swallowed. May cause eye and skin irritation. May cause respiratory tract irritation. May be harmful if absorbed through skin. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

HMIS RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

NFPA RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
INHALATION EXPOSURE	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
DERMAL EXPOSURE	In case of contact, immediately wash skin with soap and copious amounts of water.
EYE EXPOSURE	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.

Section 5 - Fire Fighting Measures

FLASH POINT	89°C (192°F) closed cup
AUTOIGNITION TEMP	300-302°C (572-575°F)
FLAMMABILITY	N/A
EXTINGUISHING MEDIA	
Suitable:	Water spray, carbon dioxide, foam and dry powder
Not suitable:	Not known
FIREFIGHTING	
Protective Equipment:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6 - Accidental Release Measures

METHODS FOR CLEANING UP:	Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area
	and wash spill site after material pickup is complete.

Section 7 - Handling and Storage		
HANDLING		
User Exposure:	Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.	
STORAGE		
Suitable:	Keep tightly closed. Store at room temperature.	
Section 8 - Exposure Controls / PPE		
PERSONAL PROTECTIVE EQUIPMENT		
Respiratory:	Respiratory protection not required. If desired, use multi-purpose respirator.	
Hand:	Protective gloves.	
Eye:	Chemical safety goggles.	
GENERAL HYGIENE MEASURES:	Wash thoroughly after handling.	
Section 9 - Physical and chemical properties		
APPEARANCE PHYSICAL STATE:	Orange liquid	
Section 10 - Stability and Reactivity		
STABILITY:	Stable under recommended storage conditions	
Materials to Avoid:	Strong oxidizing agents, organic and inorganic acid chlorides, alkali metals, hydbromic acid, acidic solutions of alkali bromides	
HAZARDOUS DECOMPOSITION PRODUCTS		
Hazardous Decomposition Products:	Carbon oxides, nitrogen oxides.	
HAZARDOUS POLYMERIZATION		
Hazardous Polymerization:	Will not occur.	

Section 11 - Toxicological Information

ROUTE OF EXPOSURE	
Skin Contact:	Causes skin irritation.
Skin Absorption:	May be harmful if absorbed through the skin.
Eye Contact:	Causes eye irritation.
Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	Harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

No known significant effects or critical hazards.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION: Observe all federal, state, and local environmental regulations. Within the present knowledge of the supplier, this product is not regarded as hazardous waste.

Section 14 - Transport Information

DOT		
	Proper Shipping Name:	None
IATA	Non-Hazardous for Transport:	This substance is considered to be non-hazardous for transport.
	Non-Hazardous for Air Transport:	Non-hazardous for air.

Section 15 - Regulatory Information

OSHA Hazards:

Target organ effect. Harmful by ingestion. Toxic by skin absorption. Irritant.

Section 16 Other information

For R&D use only. Not for drug, household or other uses.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.