

Safety Data Sheet

3-Amino-9-Ethylcarbazole Staining Solution

Section 1 - Chemical Product and Company Identification

SDS Name: 3-Amino-9-Ethylcarbazole Staining Solution

Catalog Numbers: B-173-2

Company Identification: ROWLEY BIOCHEMICAL
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H302-Acute Oral Toxicity: 4

H350-Carcinogenicity: 1B

Pictograms or Hazard symbols and Hazard statement.



Signal Word: Danger

Hazard Statement(s):

H302-Harmful if swallowed

H350-May cause cancer

Precautionary Statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P281 Use personal protective equipment as required.

P308+P313 If exposed or concerned: Get medical advice/attention.

P264 Wash thoroughly after handling.

P301 + P312 If swallowed, call a poison center or doctor/physician if you feel unwell.

P330 Rinse mouth.

P405 Store locked up.

P501 Dispose of contents in accordance with all federal, state, and local regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
67-68-5	DMSO	10.7 v/v
64-19-7	Glacial Acetic Acid	0.10 v/v
7722-84-1	Hydrogen Peroxide	0.02 v/v
132-32-1	3-Amino-9-Ethylcarbazole	0.02 w/v
	Water	Balance

Section 4 - First Aid Measures

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.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Oral Exposure: If Swallowing seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Flash Point: DMSO 87 deg C (189 deg F) - closed cup

Autoignition Temperature: no data

Explosion Limits, Lower: DMSO 3.5 vol %

Upper: DMSO 42 vol %

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear protective gear. Eliminates all sources of ignition.

Methods for Cleaning up: Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials. Protect from heat. Vapors heavier than air, may travel considerable distance and ignite or explode.

Section 8 - Exposure Controls, Personal Protection
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Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
DMSO	N/A	N/A	N/A

OSHA Vacated PELs: N/A

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: 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 a respirator's use.

Section 9 - Physical and Chemical Properties
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Physical State: Solution

Appearance: pale liquid

Odor: Dimethyl sulfoxide odor

pH: N/A

Vapor Pressure: DMSO 0.60 mm Hg at 25 deg C

Vapor Density: DMSO 2.71

Evaporation Rate: N/A

Viscosity: DMSO 2.47 cP at 20 deg C

Boiling Point: DMSO 189 deg C

Solubility: N/A

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, oxidizers.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, sulfur oxides.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information
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RTECS#:

CAS# 67-68-5 (DMSO) PV6210000

LD50/LC50:

CAS# 67-68-5 (DMSO):

Oral, rat: LD50 = 14,500 mg/kg.

Inhalation, rat: LC50 = 40250 ppm/4Hr

Dermal, rabbit LD50

Solution Carcinogenicity (DMSO):

DMSO: Carcinogenicity – Rat – Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and appendages:

Other: Tumors.

DMSO: Carcinogenicity – Mouse – Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin and

Appendages: Other: Tumors.

Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects (DMSO):

Reproductive toxicity – Rat – Intraperitoneal

Effects on Fertility: Abortion

Reproductive toxicity – Rat – Intraperitoneal

Effects on Fertility: Post-Implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity – Rat – Subcutaneous

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity – Mouse – Oral

Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific developmental abnormalities: musculoskeletal system.

Development Toxicity – Mouse – Intraperitoneal
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific developmental abnormalities: musculoskeletal system.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: No information available.

Section 12 - Ecological Information

Ecotoxicity (DMSO):

LC50 – Pimephales promelas (fathead minnow) – 34,000 mg/l – 96 h

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

EC50 – Daphnia magna (water flea) – 24,600 mg/l – 48 h

EC50 – Pseudokirchneriella subcapitata (green algae) – 17,000 mg/l – 72 h

Environmental (DMSO): Biodegradability Result: 31% - According to the results of tests of biodegradability this product is not readily biodegradable.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Disposal: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Not regulated for transport.

Section 15 - Regulatory Information

California Prop 65 (DMSO):

California No Significant Risk Level: None of the chemicals in this product are listed.

Section 16 - Additional Information

SDS Creation Date: 12/11/17

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