

# **MATERIAL SAFETY DATA SHEET**

Manufactured By Arkion Life Sciences LLC  
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Infotech Emergency Telephone Numbers:  
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## **I. CHEMICAL PRODUCT/COMPANY IDENTIFICATION**

PRODUCT NAME: AV-1011

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## **II. COMPOSITION: INFORMATION ON INGREDIENTS**

CHEMICAL NAME: \* 50% 9,10 Anthraquinone (CAS #84-65-1)  
50% Inert Ingredients

\* All percentages are approximate.

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## **III. HAZARDS IDENTIFICATION**

This product contains no ingredients listed or defined as hazardous under the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### **HUMAN HEALTH DATA**

ROUTE(S) OF ENTRY: Skin contact; Eye contact

### **HUMAN EFFECTS AND**

SYMPTOMS OF OVEREXPOSURE: (This data is based on active ingredient)

ACUTE SKIN CONTACT: On the basis of animal toxicity testing (see Section XI), we expect this product to be non-irritating to the skin.

ACUTE EYE CONTACT: On the basis of animal toxicity testing (see Section XI), we expect this product to be non-irritating to the eyes.

ACUTE INGESTION: Ingestion may cause a laxative effect and produce a greenish or bluish colored urine. On the basis of animal toxicity testing (see Section XI), we expect this product to be essentially non-toxic by ingestion.

CHRONIC EFFECTS OF EXPOSURE: No applicable information was found concerning any adverse chronic health effects to humans resulting from long-term repeated overexposure to this product.

CARCINOGENICITY: None of the components listed by NTP, IARC, or regulated as a carcinogen by OSHA.

### **MEDICAL CONDITIONS:**

AGGRAVATED EXPOSURE: None known.

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## **IV. FIRST AID MEASURES**

FIRST AID FOR EYES: Immediately flush eyes with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Get medical attention.

FIRST AID FOR SKIN: In case of contact, remove product mechanically and wash skin with soap or mild detergent and water. Remove contaminated clothing. Call a physician if irritation occurs. Wash clothing before reuse.

FIRST AID FOR INGESTION: If swallowed, call a physician immediately.

## V. FIRE AND EXPLOSION DATA

FIRE & EXPLOSION HAZARDS: Minimal  
 EXTINGUISHING MEDIA: Water Spray. Foam. Dry Chemical. CO<sub>2</sub>. Halon  
 SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus. Wear full protective equipment. Use water spray.  
 Cool tank/container with water spray.  
 If area is heavily exposed to fire and if conditions permit, let fire burn itself out, since water may increase the area contaminated.

## VI. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: Utilize protective clothing and equipment (see Section VII). Spills should be taken up mechanically and placed into labelled, closable containers. Avoid generation of dust. Spill area can be washed with water. Collect wash water for approved disposal.

## VII. HANDLING AND STORAGE

STORAGE TEMPERATURE: Less than 122 F (50 C), and above freezing.  
 SHELF LIFE: Five (5) years - Estimated.  
 SPECIAL SENSITIVITY: None known.  
 HANDLING/STORAGE PRECAUTIONS: Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from excessive heat. Reseal containers immediately after use. Store away from food and beverages.

## VIII. EXPOSURE CONTROL/PERSONAL PROTECTION

EYE PROTECTION: Safety glasses or goggles are recommended.  
 SKIN PROTECTION: Rubber gloves and other protective clothing as appropriate to prevent skin contact.  
 RESPIRATOR: None.  
 ADDITIONAL PROTECTIVE MEASURES: Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of the product.

## IX. PHYSICAL DATA

SOLUBILITY IN WATER: Miscible  
 ODOR: Weak Aromatic  
 FORM: Liquid  
 COLOR: Light Tan  
 pH: 7.5-8.5

## X. STABILITY AND REACTIVITY

STABILITY: This is a stable material.  
 HAZARDOUS POLYMERIZATION: Will not occur.  
 INCOMPATIBILITIES: None known.  
 INSTABILITY CONDITIONS: Stable at normal temperatures and storage conditions.  
 DECOMPOSITION TEMPERATURE: Greater than 518 F (270 C).  
 DECOMPOSITION PRODUCTS: Thermal decomposition may product potentially toxic and/or hazardous gases.

## XI. TOXICOLOGICAL INFORMATION

**ANIMAL DATA** - Active Ingredient shows low toxicity by all routes of exposure.

### ACUTE TOXICITY

ORAL: Rat LD<sub>50</sub> - >5,000 mg/kg; FIFRA Category IV  
 DERMAL: Rat LD<sub>50</sub> - >5,000 mg/kg; FIFRA Category IV  
 INHALATION: Rat LC<sub>50</sub> - >2.04mg/l; FIFRA Category IV  
 EYE IRRITATION: Rabbit; mild irritation; all animals free of irritation in 72 hours; FIFRA Category III  
 SKIN IRRITATION: Rabbit; slight irritation; all animals free of irritation in 24 hours; FIFRA Category III

No skin allergy was observed in guinea pigs following repeated skin exposure.

## XII. ECOLOGICAL INFORMATION

AQUATIC TOXICITY LC50: 5,300 mg/l (pimephales promelae)

## XIII. DISPOSAL CONSIDERATIONS

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial and Local Regulations.

CONTAINER DISPOSAL: Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## XIV. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: None  
 D.O.T. HAZARD CLASS: Non-regulated  
 PRODUCT RQ (lbs.): None  
 D.O.T LABEL: Non-regulated  
 D.O.T. PLACARD: Non-regulated  
 PRODUCT LABEL: Sulf Control®

## XV. REGULATORY INFORMATION

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS: On TSCA Inventory

CERCLA REPORTABLE QUANTITY: None

SARA TITLE III:

SECTION 302 EXTREMELY  
 HAZARDOUS SUBSTANCES: None

SECTION 311/312  
 HAZARDOUS CATEGORIES: Non-hazardous under Section 311/312

SECTION 313  
 TOXIC CHEMICALS: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

## XVI. OTHER INFORMATION

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on regulatory requirements you should contact the appropriate agency in your state.

NEW JERSEY: The active ingredient is contained on the New Jersey Hazardous Substance List, NJ1

PENNSYLVANIA: The active ingredient is considered Pennsylvania Non-hazardous, PA3

CALIFORNIA PROPOSITION 65: To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects.

MASSACHUSETTS SUBSTANCE LIST (MSL): Hazardous substances and extraordinary hazardous substances on the MSL must be identified when present in products. To the best of our knowledge, this product contains no substances at a level which could require reporting under the statute.

NFPA 704M RATINGS:	Health 1	Flammability 1	Reactivity 0	
	0 = Insignificant	1 = Slight	2 = Moderate	3 = High
			4 = Extreme	
HMIS RATINGS:	Health 1	Flammability 1	Reactivity 0	Other B
	0 = Minimal	1 = Slight	2 = Moderate	3 = Serious
			4 = Severe	B = Safety Glasses, gloves

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**XVII. APPROVALS**

PREPARED BY: K. E. Ballinger  
APPROVAL DATE: 03/01/09

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