

**Safety Data Sheet**  
**Nuclear Fast Red K098 (OSHA)**



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**SECTION 1: Identification**

**1.1 GHS Product identifier**

Product name	Nuclear Fast Red K098 (OSHA)
Product number	K098
Brand	Nuclear Fast Red K098

**1.3 Recommended use of the chemical and restrictions on use**  
In Vitro Diagnostic Use

**1.4 Supplier's details**

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

**1.5 Emergency phone number**

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

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**SECTION 2: Hazard identification**

**General hazard statement**  
For Professional Users Only

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with: OSHA (29 CFR 1910.1200)**

- Acute toxicity, dermal (chapter 3.1), Cat. 5
- Acute toxicity, inhalation (chapter 3.1), Cat. 5
- Acute toxicity, oral (chapter 3.1), Cat. 5

**2.2 GHS label elements, including precautionary statements**

**Pictogram**

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1. Skull and crossbones

**Signal word**

**Warning**

**Hazard statement(s)**

H310

Fatal in contact with skin

**Precautionary statement(s)**

P262

Do not get in eyes, on skin, or on clothing.

P264

Wash hands thoroughly after handling.

P270

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

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water.

P310

Immediately call a POISON CENTER/doctor.

P361+P364

Take off immediately all contaminated clothing and wash it before reuse.

P405

Store locked up.

P501

Dispose of contents/container to a licensed disposal company.

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**SECTION 3: Composition/information on ingredients**

**3.2 Mixtures**

**Hazardous components**

**1. Aluminum sulfate**

Concentration

< 5 % (weight)

Other names / synonyms

Aluminii sulfas; Aluminium sulfate; Aluminium sulphate; Sulfuric acid, aluminum salt (3:2)

CAS no.

10043-01-3

**2. Acetic acid**

Concentration

< 2 % (volume)

Other names / synonyms

acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID

EC no.

200-580-7

CAS no.

64-19-7

Index no.

607-002-00-6

- Flammable liquids (C.4.19), Cat. 3

- Skin corrosion/irritation (C.4.4), Cat. 1A

H226

Flammable liquid and vapor

H314

Causes severe skin burns and eye damage

SCLs/M-factors/ATEs

Skin Corr. 1A; H314: C ≥ 90 %

Skin Corr. 1B; H314: 25 % ≤ C < 90 %

Skin Irrit. 2; H315: 10 % ≤ C < 25 %

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Eye Irrit. 2; H319: 10 % ≤ C < 25 %

### 3. Nuclear Fast Red

Concentration	< 1 % (weight)
Other names / synonyms	2-Anthracenesulfonic acid, 4-amino-9,10-dihydro-1,3-dihydroxy-9,10-dioxo-, monosodium salt;
CAS no.	6409-77-4

#### Trade secret statement (OSHA 1910.1200(i))

\*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.  Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.  Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
Personal protective equipment for first-aid responders	Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

### 4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available

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### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

#### 5.2 Specific hazards arising from the chemical

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SODIUM AZIDE: Sodium oxides

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### 6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

#### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### Reference to other sections

For disposal see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

#### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

CAS: 26628-22-8 (EC: 247-852-1)

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Sodium azide

ACGIH: 0.29 mg/m<sup>3</sup> (C); 0.1 ppm (C) hydrazoic acid vapor TLV® inhalation; NIOSH: 0.29 mg/m<sup>3</sup> (C); 0.1 ppm (C) hydrazoic acid vapor REL-C inhalation

### CAS: 64-19-7 (EC: 200-580-7)

Acetic acid

ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; Cal/OSHA (USA): 40 ppm C inhalation; 10 ppm, (ST) 15 ppm, (C) 40 ppm PEL inhalation; 10 ppm, 25 mg/m<sup>3</sup> PEL inhalation; 15 ppm, 37 mg/m<sup>3</sup> STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m<sup>3</sup> ST inhalation; 10 ppm, 25 mg/m<sup>3</sup> TWA inhalation; OSHA (USA): 25 mg/m<sup>3</sup> PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m<sup>3</sup> TWA inhalation

## 8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 8.3 Individual protection measures, such as personal protective equipment (PPE)

### Pictograms



### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin 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.

### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Thermal hazards

No data available

### Control banding approach

No data available.

### Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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## SECTION 9: Physical and chemical properties and safety characteristics

Physical state  
Appearance  
Color  
Odor

Liquid  
Opaque  
Red  
Odorless

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Odor threshold	No data available.
pH	3.2
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

### Particle characteristics

No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

No data available.

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None under normal use conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

None under normal use conditions.

### 10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents

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Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

### 10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

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Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides  
Other decomposition products - No data available  
In the event of fire: see section 5

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

The ATE (dermal) of the mixture is: 5000 mg/kg bw

The ATE (gas inhalation) of the mixture is: 100000 ppmV

The ATE (oral) of the mixture is: 5000 mg/kg bw

Acetic acid

LD50 Oral - Rat - 3,310 mg/kg

Acetic acid

LC50 Inhalation - Mouse - 5620 ppm - 1 h

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid

LC50 Inhalation - Rat - 11.4 mg/l - 4 h

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

##### Skin corrosion/irritation

Irritating to skin.

##### Serious eye damage/irritation

Causes eye irritation.

##### Respiratory or skin sensitization

Based on available data, classification data are not met

##### Germ cell mutagenicity

Based on available data, classification data are not met

##### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

##### Reproductive toxicity

Based on available data, classification data are not met

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### STOT-single exposure

No data available

### STOT-repeated exposure

Based on available data, classification data are not met

### Aspiration hazard

Based on available data, classification data are not met

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## SECTION 12: Ecological information

### Toxicity

Acetic acid

LC50 - Oncorhynchus mykiss (rainbow trout) - >1,000 mg/l - 96 h

Citation: (OECD Test Guideline 203)

Acetic acid

EC50 - Daphnia magna (water flea) - >300.82 mg/l - 48 h

Citation: (OECD Test Guideline 202)

### Persistence and degradability

No data available on product

### Bioaccumulative potential

No data available on product

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### Endocrine disrupting properties

No data available.

### Other adverse effects

No data available.

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## SECTION 13: Disposal considerations

### Disposal methods

#### Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Packaging disposal

Dispose of as unused product.

#### Waste treatment

No data available

#### Sewage disposal

Do not let product enter drains

### Other disposal recommendations



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Dispose of contents/ container in accordance with the local/regional/national/international regulations.

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### SECTION 14: Transport information

#### DOT (US)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### 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.

##### Canadian Domestic Substances List (DSL)

Chemical name: Sodium azide (Na(N<sub>3</sub>))

CAS: 26628-22-8

Chemical name: Sulfuric acid, aluminum salt (3:2)

CAS: 10043-01-3

Chemical name: Acetic acid

CAS: 64-19-7

Chemical name: 2-Anthracenesulfonic acid, 4-amino-9,10-dihydro-1,3-dihydroxy-9,10-dioxo-, monosodium salt

CAS: 6409-77-4

##### Massachusetts Right To Know Components

Chemical name: Sodium azide (Na(N<sub>3</sub>))

CAS number: 26628-22-8

Chemical name: Aluminum sulfate

CAS number: 10043-01-3

Acetic acid

CAS number: 64-19-7

##### New Jersey Right To Know Components

Common name: SODIUM AZIDE

CAS number: 26628-22-8

Common name: ALUMINUM SULFATE

CAS number: 10043-01-3

Acetic acid

CAS number: 64-19-7

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### Pennsylvania Right To Know Components

Chemical name: Sodium azide

CAS number: 26628-22-8

Chemical name: Sulfuric acid, aluminum salt (3:2)

CAS number: 10043-01-3

Acetic acid

CAS number: 64-19-7

### SARA 302 Components

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

### SARA 311/312 Hazards

Acute Health Hazard

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Seveso Directive

Yes. H2 -acute toxic. E1

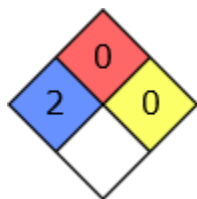
## 15.2 Chemical Safety Assessment

The supplier of this product has not conducted any Chemical Safety Assessment

### HMIS Rating

Nuclear Fast Red K098 (OSHA)	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

### NFPA Rating



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## SECTION 16: Other information

SDS-0109, Rev. B

### 16.1 Further information/disclaimer

## **Safety Data Sheet**

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DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic BioSystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.