



Safety Data Sheet

Product Name: Universal Kinase Activity Kit, 2 Plate

Reviewed on: 14 November 2012

1. Identification of Substance:

- **Other means of identification: Catalog Number: EA004**
Components: Coupling Phosphatase 4, Phosphatase Buffer 4, ATP, ADP, Phosphate Standard, Malachite Green Reagent A (contains Sulfuric acid), Malachite Green Reagent B.
- **GHS product identifier:** Universal Kinase Activity Kit, 2 Plate
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**
R&D Systems Inc.
614 McKinley Place N.E.
Minneapolis, MN 55413
USA
- **For product related questions call:** 1-800-343-7475. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident call **CHEMTREC** at 1-800-424-9300 (US or Canada). Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2. Hazard Identification:

- **Classification: Regulation (EC) No. 1272/2008 [CLP/GHS]: Malachite Green Reagent A Solution**

Skin Corrosion 1A
Skin Irritation, 2
Eye irritation, 2
Acute Toxicity, 4
STOT SE 3



- **Signal Word:** DANGER

- **Hazard statements:** H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H319: Causes serious eye irritation. H332: Harmful if inhaled. H335: May cause respiratory irritation.
- **Precautionary statements:** P260: Do not breathe dusts or mists. P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P261: Avoid breathing dust/fume/gas/mist/vapours/spray. P271: Use only outdoors or in a well-ventilated area.

Response:

IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Wash contaminated clothing before reuse.
Rinse skin with water/shower. Wash with plenty of water. See specific treatment in this SDS. If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a POISON CENTER or physician if you feel unwell.

IN INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor if you feel unwell. See specific treatment in this SDS.

- **Classification according to Directive 67/548/EEC:**

▪ **Hazard Statement:** C: Corrosive, Xn: Harmful, Xi: Irritant

R-Phrases: R35: Causes severe burns. R36/37/38: Irritating to eyes, respiratory system and skin. R22: Harmful if swallowed. R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

S-Phrase: S(1/2): Keep locked up and out of the reach of children. S26: In case of contact with eyes, rinse immediately with plenty of water and see medical advice. S30: Never add water to this product. S45: In case of accident, seek medical advice immediately and show this container or label. S37/39: Wear suitable gloves and eye/face protection. S36: Wear suitable protective clothing.

- **Other hazards:** none



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3. Information on Ingredients:

Description: Sulfuric Acid, Formula: H₂SO₄.

Contains	CAS No.	EC-No.	Index-No.	Content
Sulfuric Acid	7664-93-9	231-639-5	016-020-00-8	25 – 30%
Ammonium Molybdate	12054-85-2	234-320-9	-	1 – 5%

4. First Aid Measures:

- IF IN EYES: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
- IF ON SKIN (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
- IF INHALED: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.
- Potential acute / delayed health effects:**
 - Eye contact:** Causes serious eye irritation / causes burns
 - Skin contact:** Causes skin irritation / causes burns
 - Inhalation:** Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
 - Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. / Causes burns
- Notes to physician:** Consult a physician. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures:

- Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Hazards from the substance or mixture:** In case of fire, toxic and corrosive gases may be formed.
- Special precautions for fire-fighters:** Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures:

- Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- Measures for environmental protection:** Keep away from drains.
- Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- Precautions for safe handling:** Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.
- Conditions for safe storage:** **Store locked up.** Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. Exposure Controls and Personal Protection:

- Control parameters:** Contains no substances with occupational exposure limit values
- Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
 - Eye/face protection:** Wear approved safety goggles.



Safety Data Sheet

Product Name: Universal Kinase Activity Kit, 2 Plate

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Skin/hand protection: Handle with protective gloves, plastic or rubber. 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: Wear suitable protective clothing as protection against splashing or contamination.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

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| <ul style="list-style-type: none">▪ Appearance: Liquid▪ Odor: pungent▪ Odor threshold: Not available▪ pH: ~1▪ Melting point/freezing point: Not available.▪ Boiling point/Boiling range: Not available▪ Flash point: Not available▪ Evaporation rate: Not available▪ Flammability (solid, gas): Not available | <ul style="list-style-type: none">▪ Upper/lower flammability or explosive limits: Not available▪ Vapor density : Not available▪ Vapor pressure: Not available▪ Relative density: Not available▪ Solubility in/Miscibility with Water: Soluble▪ Partition coefficient: noctanol/water: Not available▪ Auto igniting: Not available▪ Decomposition temperature: Not available▪ Viscosity: Not available |
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10. Stability and Reactivity:

- **Reactivity:** Contact with metals produces highly flammable hydrogen gas. Addition of water liberates excessive heat.
- **Chemical Stability:** Stable under recommended storage conditions.
- **Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid:** Bases, Halides, Metals, Alkalis, Acetonitrile.
- **Incompatible materials:** Most metals, oxidizers, reducers, bases, metal carbonates, cyanides, sulphides, carbides, oxides, metal acetylides, hydrides, halogens, organic or combustible materials, perchlorates, acetonitrile, permanganates, alcohols, picrates.
- **Hazardous decomposition products:** Products formed under fire conditions: Oxides of Sulphur, Hydrogen gas.

11. Toxicological Information:

- **Acute toxicity:** Can cause severe burns upon contact while the vapours or mist are corrosive and can cause severe irritation or damage to the nose, throat and lungs. Ingestion of this product causes pain, nausea and vomiting and may be fatal if large doses are ingested.
- **Skin corrosion/irritation:** Can cause severe burns
- **Serious eye damage/irritation:** Can cause severe burns
- **Respiratory or skin sensitization:** No data available
- **Germ cell mutagenicity:** No data available
- **Carcinogenicity:** No data available
- **Reproductive toxicity:** No data available
- **Specific target organ toxicity (STOT) -single exposure:** May cause respiratory irritation.
- **Specific target organ toxicity (STOT) -repeated exposure:** No data available
- **Aspiration hazard:** Can cause severe burns
- **Information on likely routes of exposure:** Routes of entry anticipated; oral, dermal, inhalation.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
 - Ingestion:** May be harmful if swallowed. Causes burns.
 - Skin contact:** May be harmful if absorbed through skin. Causes burns.
 - Eye contact:** Causes eye burns.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:**
 - Short term exposure: Potential immediate effects:** Not available. **Potential delayed effects:** Not available.
 - Long term exposure: Potential immediate effects:** Not available. **Potential delayed effects:** Not available.



Safety Data Sheet

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- **Effects of chronic exposure:** Repeated skin contact with this product may lead to dermatitis while repeated inhalation may cause bronchitis, conjunctivitis, respiratory infections, emphysema and digestive disturbances. May cause erosion and discoloration of the teeth.
- **Numerical measures of toxicity:** Not available
- **Other Information:** NA

12. Ecological Information:

- **Ecotoxicity:** This product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.
- **Biodegradability:** No data available.
- **Bioaccumulative potential:** No data available.
- **Mobility in soil:** No data available.
- **Other adverse effects:** No data available.

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Contaminated packaging:** Dispose in the same manner as unused product.
- **Special precautions:** Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

14. Transport Information:

- **ADR/RID ADN/ADNR IMDG IATA/DOT**

ADR/DOT:	UN Number:	UN 2796
RID	Proper Shipping Name:	Sulphuric Acid
	Hazard class:	8
	Packing group:	II

IATA:	UN Number:	UN 2796
	Proper Shipping Name:	Sulphuric Acid
	Hazard class:	8
	Packing group:	II

IMDG:	UN Number:	UN 2796
	Proper Shipping Name:	Sulphuric Acid
	Hazard class:	8
	Packing group:	II
	EmS Number:	F-A, S-B
	Marine Pollutant:	No

15. Regulations:

- **US Federal and State Regulations**

Toxic Substances Control Act: Sulphuric Acid is listed. Ammonium Molybdate is not listed.

SARA 313 Components: Sulphuric Acid and Ammonium Molybdate are not listed.

SARA 311/312 Hazards: Sulphuric Acid and Ammonium Molybdate are Acute Health Hazards.

CERCLA Reportable Quantity: Sulphuric Acid: 1,000 lbs. Ammonium Molybdate: none.

California Proposition 65: Sulphuric Acid and Ammonium Molybdate are not listed.



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16. Other Information:

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