Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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1 Identification		
· Product identifier		
<ul> <li>Trade name: Potassium Chromate Indicator Solution, 5% w/v</li> <li>Product code: DUMTK-628-08</li> </ul>		
<ul> <li>Recommended use and restriction on use</li> <li>Recommended use: Laboratory chemicals</li> <li>Restrictions on use: No relevant information available.</li> </ul>		
<ul> <li>Details of the supplier of the Safety Data Sheet</li> <li>Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com</li> <li>Distributor: Dubois Chemicals Inc. 3630 East Kemper Rd Cincinnati, OH 45241 (800) 438-2647</li> </ul>		
Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)		
2 Hazard(s) identification		
Classification of the substance or mixture		
Acute Tox. 4 H302 Harmful if swallowed.		
Skin Sens. 1 H317 May cause an allergic skin reaction.		
Muta. 1B H340 May cause genetic defects.		
Carc. 1B H350 May cause cancer. Route of exposure: Inhalation.		
<ul> <li>Label elements</li> <li>GHS label elements</li> <li>The product is classified and labeled according to the Globally Harmonized System (GHS).</li> <li>Hazard pictograms:</li> </ul>		
GHS07 GHS08		
• Signal word: Danger • Hazard statements: H302 Harmful if swallowed.		

H317 May cause an allergic skin reaction.

H340 May cause genetic defects. H350 May cause cancer. Route of exposure: Inhalation.

Precautionary statements:

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#### Trade name: Potassium Chromate Indicator Solution, 5% w/v (Cont'd. of page 1) P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing mist, vapors, or spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. P280 P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P330 Rinse mouth. P302+P352 If on skin: Wash with plenty of soap and water. P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. • Other hazards There are no other hazards not otherwise classified that have been identified.

### 3 Composition/information on ingredients

### · Chemical characterization: Mixtures

### · Components:

7732-18-5 Water

7789-00-6 potassium chromate

Acute Tox. 3, H301

- Muta. 1B, H340; Carc. 1B, H350
- 🍈 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335

### Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

### 4 First-aid measures

### <sup>.</sup> Description of first aid measures

· General information: No special measures required.

• After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation or rash occurs: Get medical advice/attention.

### · After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

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>90%

<10%

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Gastric or intestinal disorders when ingested. Allergic reactions Nausea in case of ingestion. Causes mild skin irritation. Causes skin irritation. • Danger: Harmful if swallowed. May cause genetic defects. May cause cancer. Route of exposure: Inhalation. • Indication of any immediate medical attention and special treatment needed: Medical supervision for at least 48 hours.

If medical advice is needed, have product container or label at hand.

### 5 Fire-fighting measures

#### • Extinguishing media

· Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

### 6 Accidental release measures

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

Ensure adequate ventilation.

Wear protective clothing.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

### • Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

Send for recovery or disposal in suitable receptacles.

#### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

#### · Handling

· Precautions for safe handling:

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Prevent formation of aerosols. Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

· Information about protection against explosions and fires: No special measures required.

### Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Due to photo-sensitivity, store product in brown-glass receptacles.

Store in a cool location.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with acids.

• Further information about storage conditions: Keep containers tightly sealed.

· Specific end use(s) No relevant information available.

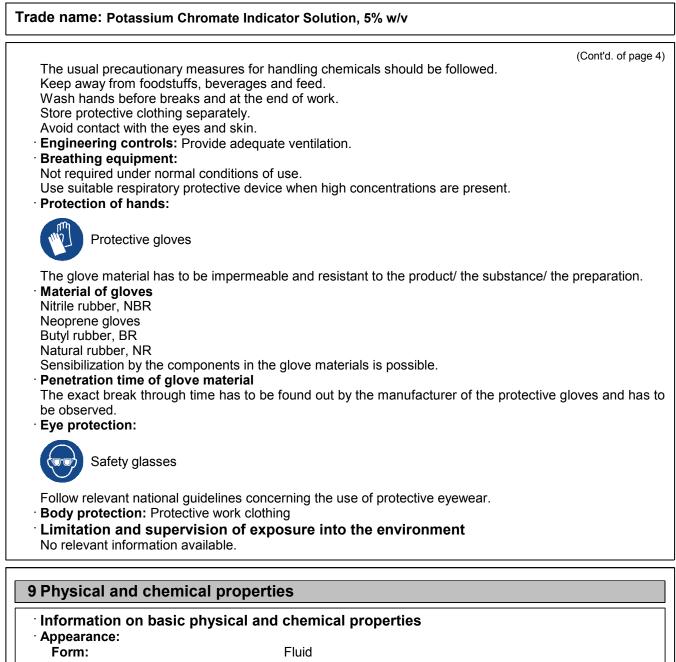
### 8 Exposure controls/personal protection

### · Control parameters

	with limit values that require monitoring at the workplace:
7789-00-6 pot	assium chromate
PEL (USA)	Long-term value: 0.005* mg/m <sup>3</sup> Ceiling limit value: 0.1** mg/m <sup>3</sup> *as Cr(VI) **as CrO3; see 29 CFR 1910.1026
REL (USA)	Long-term value: 0.0002 mg/m³ as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Short-term value: 0.0005 mg/m³ Long-term value: 0.0002 mg/m³ as Cr; inhalable, Skin; BEI, DSEN, RSEN
EL (Canada)	Long-term value: 0.025 mg/m³ Ceiling limit value: 0.1 mg/m³ as Cr; ACGIH A1, IARC 1
LMPE (Mexico	) Long-term value: 0.05 mg/m³ A1, IBE; como Cr
· Ingredients w	ith biological limit values:
7789-00-6 pot	assium chromate
Tin Pa 10 Me Tin	dium: urine ne: end of shift at end of workweek rameter: Total chromium (fume) µg/L dium: urine ne: increase during shift
· Exposure co	rameter: Total chromium (fume) Introls ctive and hygienic measures: (Cont'd. on page

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Color: Odor:	Light yellow Characteristic	
Odor threshold:	Not determined.	
<ul> <li>pH-value:</li> <li>Melting point/Melting range:</li> </ul>	Not determined. Not determined.	
· Boiling point/Boiling range:	105-110 °C (221-230 °F)	
· Flash point:	The product is not flammable.	
· Flammability (solid, gaseous):	Not applicable.	
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		(Cont'd. of pa
Auto-ignition temperature:	Not determined.	
Decomposition temperature:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits		
Lower:	Not determined.	
Upper:	Not determined.	
Oxidizing properties:	Not determined.	
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
Density at 20 °C (68 °F):	>1.17 g/cm³ (>9.76 lbs/gal)	
Relative density:	Not determined.	
Vapor density:	Not determined.	
Evaporation rate:	Not determined.	
Solubility in / Miscibility with		
Water:	Soluble.	
Partition coefficient (n-octanol/wate	er): Not determined.	
Viscosity		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Other information	No relevant information available.	

## 10 Stability and reactivity

· Reactivity: No relevant information available.

· Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

### <sup>•</sup> Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

Reacts with strong acids. Conditions to avoid

Direct sunlight.

Excessive heat.

· Incompatible materials No relevant information available.

### · Hazardous decomposition products

Under fire conditions only:

Toxic metal oxide smoke

### 11 Toxicological information

### Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

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K

### 7789-00-6 potassium chromate

Oral LD50 180 mg/kg (mouse)

### Primary irritant effect:

· On the skin: May cause minor skin irritation, mainly with prolonged contact.

- **On the eye:** Based on available data, the classification criteria are not met.
- · Sensitization: Sensitization possible through skin contact.

### · IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

### • NTP (National Toxicology Program):

7789-00-6 potassium chromate

### **OSHA-Ca** (Occupational Safety & Health Administration):

None of the ingredients are listed.

### · Probable route(s) of exposure:

Ingestion. Inhalation.

Eve contact.

Skin contact.

• Acute effects (acute toxicity, irritation and corrosivity): Harmful if swallowed.

- · Repeated dose toxicity:
- Danger of very serious irreversible effects.

Repeated exposure may result in skin sensitivity.

### · Germ cell mutagenicity: May cause genetic defects.

· Carcinogenicity: May cause cancer. Route of exposure: Inhalation.

• Reproductive toxicity: Based on available data, the classification criteria are not met.

- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

### **12 Ecological information**

<sup>·</sup> Toxicity

· Aquatic toxicity Toxic for aquatic organisms

- Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- Ecotoxical effects:
- · Remark: Toxic for fish
- <sup>•</sup> Additional ecological information
- · General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Other adverse effects No relevant information available.

### 13 Disposal considerations

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### <sup>•</sup> Waste treatment methods

### · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

### <sup>·</sup> Uncleaned packagings

· Recommendation: Disposal must be made according to official regulations.

14 Transport information	
· UN-Number · DOT · ADR/RID/ADN, IMDG, IATA	Not regulated. UN3082
<sup>·</sup> UN proper shipping name · DOT · ADR/RID/ADN, IATA · IMDG	Not regulated. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (potassium chromate) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (potassium chromate), MARINE POLLUTANT
<ul> <li>Transport hazard class(es)</li> <li>DOT</li> <li>Class</li> </ul>	Not regulated.
· ADR/RID/ADN	
· Class · Label	9 (M6) 9
· Class · Label	9 9
<ul> <li>Packing group</li> <li>DOT</li> <li>ADR/RID/ADN, IMDG, IATA</li> </ul>	Not regulated. III
· Environmental hazards	Product contains environmentally hazardous substances: potassium chromate
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	(Cont'd. of pag
Marine pollutant:	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances a articles
Danger code (Kemler): EMS Number:	90 F-A,S-F
Transport in bulk according to Anne MARPOL73/78 and the IBC Code	ex II of Not applicable.
Regulatory information	
Safety health and environmental	regulations/legislation specific for the substance
mixture	equiations/legislation specific for the substance
United States (USA)	
SARA	
Section 302 (extremely hazardous subs	tances):
None of the ingredients are listed.	
U	
Section 355 (extremely hazardous subs	tances):
None of the ingredients are listed.	
Section 313 (Specific toxic chemical list	tings):
7789-00-6 potassium chromate	
TSCA (Toxic Substances Control Act)	
7789-00-6 potassium chromate	
7732-18-5 Water	
Proposition 65 (California)	
Chemicals known to cause cancer:	
7789-00-6 potassium chromate	
•	
Chemicals known to cause developmen	ital toxicity for females:
7789-00-6 potassium chromate	
Chemicals known to cause developmen	ital toxicity for males:
7789-00-6 potassium chromate	
Chemicals known to cause developmen	ital toxicity:
7700.00.0	
7789-00-6 potassium chromate	
·	,
EPA (Environmental Protection Agency)	A(inh), D(oral), K/L(inh), CBD(or
EPA (Environmental Protection Agency) 7789-00-6 potassium chromate	
EPA (Environmental Protection Agency)	A(inh), D(oral), K/L(inh), CBD(or h on Cancer):

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#### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A Skin Sens. 1: Skin sensitisation - Category 1 Muta. 1B: Germ cell mutagenicity - Category 1B Carc. 1B: Carcinogenicity - Category 1B STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com