

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

\* **1 Identification**

- **Product identifier**
- **Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**
- **Product number:** RG019
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Product description** Column Regenerant For Ion-exchange Glyphosate Column
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Pickering Laboratories, Inc.  
1280 Space Park Way  
Mountain View, CA 94043  
Phone: (650) 694-6700  
Fax: (650) 968-0749  
www.pickeringlabs.com  
support@pickeringlabs.com
- **Emergency telephone number:**  
Clean Harbors Environmental Services  
1-800-645-8265

\* **2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

- **Label elements**
- **GHS label elements** Non-Regulated Material
- **Hazard pictograms** Non-Regulated Material
- **Signal word** Non-Regulated Material
- **Hazard statements** Non-Regulated Material
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Hazard(s) not otherwise classified (HNOC):** None known

\* **3 Composition/information on ingredients**

7732-18-5	Water, distilled water, deionized water	98.95-99.98%
-----------	---	--------------

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

(Contd. on page 2)

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

<b>· Dangerous Components:</b>			
CAS: 1310-58-3 RTECS: TT 2102000	Potassium Hydroxide	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	0.02-0.04%

### \* 4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Not anticipated under normal use.
- **After skin contact:**  
Immediately wash with 1% acetic acid (or vinegar) to neutralize, followed with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. For chemical burns, apply sterile bandage securely but not to tightly. Seek medical assistance.
- **After eye contact:**  
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- **After swallowing:**  
Give water freely and/or 1% acetic acid (or vinegar) followed by milk. Do not induce vomiting. Get medical assistance immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### \* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**  
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Use neutralizing agent.  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **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.

(Contd. on page 3)

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

### \* 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
No special measures required.  
Ensure good ventilation/exhaustion at the workplace.  
Avoid contact with skin, eyes and clothing  
Avoid breathing fumes.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in dry conditions at a temperature range of 8°C - 25°C.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

### \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components with occupational exposure limits:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Use adequate exhaust ventilation to prevent inhalation of product vapors.  
Do not eat or drink while handling product.  
Avoid contact with the eyes and skin.  
Wash hands before breaks and at the end of work.  
Immediately remove all soiled and contaminated clothing and wash before reuse.
- **Breathing equipment:**  
Respiratory protection is not required unless handling of the material produces nuisance airborne concentrations.
- **Protection of hands:**  
Not required.



Protective gloves

- **Material of gloves** Rubber, latex or vinyl.
- **Penetration time of glove material**  
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

(Contd. on page 4)

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Lab coat

### \* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value @ 20 °C (68 °F):** 11.8

· **Change in condition**

<b>Melting point/Melting range:</b>	Not determined.
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density @ 20 °C (68 °F):** 1 g/cm<sup>3</sup> (8.345 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

**Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity** No further relevant information available.

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:**  
Keep away from strong acids. Primary and secondary amines will cause non-hazardous contamination of this solution.
- **Hazardous decomposition products:** No dangerous decomposition products known.

**\* 11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Mild irritant effect.
- **on the eye:** Mild irritant effect.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)**  
Substance is not listed.

None of the ingredients are listed.

· **NTP (National Toxicology Program)**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are listed.

**\* 12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

(Contd. on page 6)

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

### \* 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Do not allow product to reach sewage system.  
This product may be mixed with a combustible solvent and burned in a chemical incinerator equipped with an afterburner and scrubber. This product can also be sent to an EPA approved waste disposal facility.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### \* 14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Non-Regulated Material
- **Packing group**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

### \* 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **California Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

## Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 07/01/2015

Reviewed on 07/01/2015

**Trade name: Regenerant for Glyphosate Cation exchange (K+) Column**

· **Carcinogenic categories**

· <b>EPA (Environmental Protection Agency)</b>
None of the ingredients are listed.

· <b>TLV (Threshold Limit Value established by ACGIH)</b>
None of the ingredients are listed.

· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients are listed.

- **GHS label elements** Non-Regulated Material
- **Hazard pictograms** Non-Regulated Material
- **Signal word** Non-Regulated Material
- **Hazard statements** Non-Regulated Material

· <b>National regulations:</b>
The product is subject to be classified according with the latest version of the regulations on hazardous substances.

· <b>State Right to Know</b>
CAS: 1310-58-3      Potassium Hydroxide      0.02-0.04%
RTECS: TT 2102000      ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302
CAS: 7732-18-5      Water, distilled water, deionized water      99.95-99.98%
All ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of preparation / last revision** 07/01/2015 / 9

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A