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**Elabscience Biotechnology Co., Ltd**  
***MATERIAL SAFETY DATA SHEET***

**Antibody Reagent; Antibody Reagent for Research Use Only**

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**SECTION 1 PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	(KO Validated) KRAS Polyclonal Antibody
<b>Catalog Number:</b>	E-AB-93087
<b>Company:</b>	Elabscience Biotechnology Co., Ltd
<b>Address:</b>	Building B18, 2nd Phase of Biomedical Park, #858 Gaoxin Road, Donghu Hi-Tech Development Area, Wuhan, Hubei, China
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<b>SDS Number:</b>	2617050070
<b>SDS Date:</b>	2017-05-22

**SECTION 2 HAZARDS IDENTIFICATION**

**Hazards Identification:**

According to GHS

Skin corrosion/irritation (Category 3)

Serious eye damage/irritation (Category 2B)

The hazards not mentioned are not applicable or no data available.

**Emergency Overview:**

Causes mild skin irritation. Causes eye irritation.

**SECTION 3 INFORMATION ON INGREDIENTS**

<b>Ingredient</b>	<b>Concentration</b>	<b>CAS No.</b>	<b>EC No.</b>
Glycerol	50%	56-81-5	200-289-5
Water	49.045%	7732-18-5	231-791-2
Sodium chloride	0.8%	7647-14-5	232-598-3
Disodium hydrogen orthophosphate	0.115%	7558-79-4	231-448-7
Potassium chloride	0.02%	7447-40-7	231-211-8
Potassium dihydrogen orthophosphate	0.02%	7778-77-0	231-913-4

**SECTION 4 FIRST-AID MEASURES**

**Skin Exposure**

In case of contact, immediately wash skin with soap and copious amounts of water. Irritation persists, call a physician.

**Eye Exposure:**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If irritation persists, call a physician.

**Inhalation Exposure:**

If inhaled, remove to fresh air. If necessary, get medical attention.

**Oral Exposure:**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician.

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## SECTION 5 FIRE FIGHTING MEASURES

### Extinguishing Media:

Suitable: Water spray, Dry chemical, Carbon dioxide or appropriate foam.

### Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## SECTION 6 ADDITIONAL RELEASE MEASURES

### Procedure of Personal Precaution:

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

### Methods for Cleaning up:

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

### Environmental precautions:

Do not let product enter drains.

## SECTION 7 HANDLING AND STORAGE

### Handling:

Wear appropriate protective clothing and safety gloves. Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Mechanical exhaust required. Keep away from ignition sources, heat and flame. Incompatibilities: Strong oxidizing agents. No smoking at working site.

### Storage:

Store in a cool, dry and well-ventilated area. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Incompatible: Strong bases, Strong oxidizing agents, Strong acids.

## SECTION 8 EXPOSURE CONTROL/PPE

### Engineering Controls:

Mechanical exhaust required. Safety shower and eye bath.

### Personal Protective Equipment:

Respiratory: Government approved respirator if needed.

Eye: Chemical safety goggles if needed.

Clothing: Wear appropriate protective clothing.

Hand: Protective gloves.

### Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

## SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless transparent liquid
<b>Odor:</b>	Weak odor
<b>Flash Point(Closed Cup) /□ :</b>	>96.0°C
<b>Initial Boiling Point/□ :</b>	100.8°C
<b>pH Value:</b>	7.3(25□, 50.0g/L)
<b>Solubility:</b>	Miscible in water
<b>Density/Relative Density:</b>	1.146×10 <sup>3</sup> kg/m <sup>3</sup> (20.0°C±0.1°C)

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<b>Viscosity:</b>	7.678mm <sup>2</sup> /s(20.00 <sup>o</sup> ±0.02 <sup>o</sup> , kinematic viscosity)
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## SECTION 10 STABILITY AND REACTIVITY

### Stability:

Stable under normal temperatures and pressures.

### Materials to Avoid:

Strong oxidizing agents.

### Hazardous Polymerization:

Will not occur.

### Hazardous Decomposition Products:

Carbon oxides, Sodium oxides, Phosphorous oxides, Potassium oxides, Hydrogen chloride gas.

## SECTION 11 TOXICOLOGICAL INFORMATION

### Acute toxicity:

Glycerol: Rat Oral LD<sub>50</sub>: 12600mg/kg

Rat Inhalation LC<sub>50</sub>: >570 mg/m<sup>3</sup>/1H

Rabbit Skin LD<sub>50</sub>: >10000 mg/kg

Sodium chloride: Rat Oral LD<sub>50</sub>: 3000mg/kg

Rat Inhalation LC<sub>50</sub>: >42000 mg/m<sup>3</sup>/1H

Rabbit Skin LD<sub>50</sub>: >10000 mg/kg

Potassium chloride: Rat Oral LD<sub>50</sub>: 2600mg/kg

Potassium dihydrogen orthophosphate: Rabbit Skin LD<sub>50</sub>: >4640mg/kg

### Skin corrosion/irritation:

No data available.

### Serious eye damage/irritation:

No data available.

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity:

Sodium chloride:

Toxicity to fish LC<sub>50</sub> – Lepomis macrochirus (Bluegill) – 5840 mg/l – 96h

Toxicity to daphnia and other aquatic invertebrates NOEC-Daphnia-1500mg/L-7d

LC<sub>50</sub>-Daphnia magna (Water flea)-1661mg/L-48h

Potassium chloride:

Toxicity to fish LC<sub>50</sub>-Pimephales promelas (fathead minnow)-880mg/L-96h

Mortality NOEC- Pimephales promelas (fathead minnow)-500mg/L-7d

Mortality LOEC- Pimephales promelas (fathead minnow)-1000mg/L-7d

Toxicity to daphnia and other aquatic invertebrates EC<sub>50</sub>-Daphnia magna (Water flea)-440mg/L-48h

### Persistence and degradability:

No data available.

### Bioaccumulative potential:

No data available.

### Mobility in soil:

No data available.

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### SECTION 13 DISPOSAL CONSIDERATION

#### Appropriate Method of Disposal of Substance:

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

### SECTION 14 TRANSPORT INFORMATION

<b>RID/ADR:</b>	Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport
<b>IATA:</b>	Non-Hazardous for Air Transport.
<b>IMO:</b>	Non-Hazardous for Sea Transport.

### SECTION 15 REGULATORY INFORMATION

#### Regulation (EC) No.1272/2008 and its amendments:

Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

### SECTION 16 OTHER INFORMATION

<b>Date:</b>	2017-05-22
<b>Department:</b>	Shanghai Research Institute of Chemical Industry Testing Centre Tel(Fax):8621-52815377/52800971/52807275/52811034/52569800
<b>Revision:</b>	0
<b>Other Information:</b>	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as guide. 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 this use. Users should make their own investigation to determine the suitability of the information for their particular purposes. In no way shall we 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, howsoever arising from using the above information.