



**Safety Data Sheet (SDS)** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Issuing Date: 2019-01-08

Version: 1

## SECTION 1. Identification

### Product identifier

**Product No** 18070  
**Product name** Mutant Ras Antibody Sampler Kit  
**Kit Component** 14412: Ras (G12V Mutant Specific) (D2H12) Rabbit mAb  
14429: Ras (G12D Mutant Specific) (D8H7) Rabbit mAb  
8955: Ras (D2C1) Rabbit mAb  
7074: Anti-rabbit IgG, HRP-linked Antibody

### Recommended use of the chemical and restrictions on use

**Identified uses** This product is intended for research purposes only.  
**Manufacturer, importer, supplier**

**Manufacturer address** Cell Signaling Technology, Inc.  
3 Trask Lane  
Danvers, MA 01923  
United States  
TEL: +1 978 867 2300  
FAX: +1 978 867 2400  
**Website** www.cellsignal.com  
**Email address** support@cellsignal.com  
**Emergency telephone number** In case of emergency call CHEMTREC 1-800-424-9300

## SECTION 2. Hazard(s) identification

### Classification

This substance/mixture is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### GHS Label elements, including precautionary statements

**Signal Word**  
None.

**Hazard statement(s)**  
None.

**Precautionary Statement(s)**  
None.

### Supplementary Hazard Information

No information available.

**Hazards not otherwise classified (HNOC)**

Not applicable.

### SECTION 3. Composition/information on ingredients

#### Kit Component

The following kit components contain the ingredients listed in the table below:

14412: Ras (G12V Mutant Specific) (D2H12) Rabbit mAb

14429: Ras (G12D Mutant Specific) (D8H7) Rabbit mAb

8955: Ras (D2C1) Rabbit mAb

Chemical name	CAS No.	Weight-%
sodium azide	26628-22-8	<0.2
glycerol	56-81-5	30-60

#### Kit Component

The following kit components contain the ingredients listed in the table below:

7074: Anti-rabbit IgG, HRP-linked Antibody

Chemical name	CAS No.	Weight-%
glycerol	56-81-5	30-60

### SECTION 4. First-aid measures

#### Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Get medical attention immediately if irritation persists.

#### Skin contact

Wash skin with soap and water.

#### Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

#### Ingestion

Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects, both acute and delayed

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### Advice for emergency responders

##### General advice

For further assistance, contact your local Poison Control Center.

##### Protection of first-aiders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### SECTION 5. Fire-fighting measures

#### Extinguishing media

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable Extinguishing Media

None.

#### Specific hazards arising from the chemical

No information available.

### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Avoid contact with skin, eyes and clothing. Use personal protective equipment. For personal protection see section 8.

**Other information** No information available.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## SECTION 7. Handling and storage

### Precautions for safe handling

Wear personal protective equipment. See section 8. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use.

### Conditions for safe storage, including any incompatibilities

**Technical measures/Storage conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Packaging material** No information available.

**Incompatible products** Strong oxidizing agents, Strong acids.

## SECTION 8. Exposure controls/personal protection

### Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH REL
glycerol	-	TWA mist, total particulate: 15 mg/m <sup>3</sup> TWA mist, respirable fraction: 5 mg/m <sup>3</sup>	-
sodium azide	Ceiling: 0.29 mg/m <sup>3</sup> Ceiling: 0.11 ppm	-	Ceiling: 0.1 ppm Ceiling: 0.3 mg/m <sup>3</sup>

### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

### **Individual protection measures, such as personal protective equipment**

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

<b>Eye/face protection</b>	Safety glasses with side-shields.
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## **SECTION 9. Physical and chemical properties**

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is either not available or not applicable. Refer to individual kit component SDS for further information.

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

<b>Kit Component</b>	<b>14412: Ras (G12V Mutant Specific) (D2H12) Rabbit mAb</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.5
Remarks	@ 20 °C

<b>Kit Component</b>	<b>14429: Ras (G12D Mutant Specific) (D8H7) Rabbit mAb</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.5
Remarks	@ 20 °C

<b>Kit Component</b>	<b>8955: Ras (D2C1) Rabbit mAb</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.5
Remarks	@ 20 °C

<b>Kit Component</b>	<b>7074: Anti-rabbit IgG, HRP-linked Antibody</b>
Physical state	Liquid
Appearance	Clear
Color	Colorless
pH VALUE	7.5
Remarks	@ 20 °C

## **SECTION 10. Stability and reactivity**

### **Reactivity**

No information available.

### **Chemical stability**

Stable under recommended storage conditions.

### Possibility of hazardous reactions

**Hazardous reactions** None under normal processing.  
**Hazardous polymerization** None under normal processing.

### Conditions to Avoid

Extremes of temperature and direct sunlight. Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide.

### Incompatible Materials

Strong oxidizing agents. Strong acids.

### Hazardous Decomposition Products

Nitrogen oxides (NO<sub>x</sub>).

## SECTION 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

**Inhalation** Avoid breathing vapors or mists May cause irritation of respiratory tract

**Eye contact** Avoid contact with eyes May cause slight irritation

**Skin contact** Avoid contact with skin

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

### Information on toxicological effects

#### **Component Information**

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
glycerol	= 12600 mg/kg (Rat)	> 10 g/kg ( Rabbit )	> 570 mg/m <sup>3</sup> ( Rat ) 1 h
sodium azide	= 27 mg/kg (Rat)	= 20 mg/kg ( Rabbit ) = 50 mg/kg ( Rat )	-

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Symptoms** Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

**Skin and Eye Corrosion/Irritation** No information available

**Sensitization** No information available

**Mutagenic effects** No information available

**Carcinogenicity** No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** No information available.

**Systemic Target Organ Toxicity (STOT)** No information available

**Aspiration Hazard** No information available.

## SECTION 12. Ecological information

### Ecotoxicity

**Product Information** No information available

### **Component Information**

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
glycerol	-	LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h	EC50 500 mg/L (Daphnia magna) 24 h
sodium azide	EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h	LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h	LC100 1 mg/L (Orconectes rusticus) 96 h

**Persistence and degradability** No information available

### **Bioaccumulation**

Chemical name	Octanol-Water Partition Coefficient
glycerol	-1.76

**Mobility** No information available

### Other adverse effects

No information available.

## SECTION 13. Disposal considerations

### Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

### Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

## SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

## SECTION 15. Regulatory information

### North American Inventory Listing

Refer to kit component SDS for full Toxic Substance Control Act (TSCA) reporting requirements.

Chemical name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
glycerol	Listed	Not Listed	Listed	Not Listed
sodium azide	Listed	Not Listed	Listed	Not Listed

### SARA 313

Refer to kit component SDS for full SARA Section 313 reporting requirements.

Chemical name	CAS No.	SARA 313 - Threshold Values %
sodium azide	26628-22-8	1.0

### SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### CERCLA

Refer to kit component SDS for full Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reporting requirements.

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
sodium azide	1000 lb	1000 lb

### California Proposition 65

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

Refer to kit component SDS for applicable State Right-To-Know (RTK) information.

Chemical name	New Jersey	Massachusetts	Pennsylvania
glycerol	Listed	Listed	Listed
sodium azide	Listed	Listed	Listed

## SECTION 16. Other information

**Issuing Date:** 2019-01-08

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**