



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

Issuing Date: 2018-02-14

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Version: 2

SECTION 1. Identification

Product identifier

Product No 6883
Product name SignalFire ECL™ Reagent
Kit Component 46935: SignalFire™ ECL Reagent A
74709: SignalFire™ ECL Reagent B

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

Hazards not otherwise classified (HNOC)

Not applicable.

SECTION 3. Composition/information on ingredients

Kit Component 46935: SignalFire™ ECL Reagent A

| Chemical name | CAS No | Weight-% |
|-----------------|----------|----------|
| trometamol | 77-86-1 | 1-3 |
| Ethylene glycol | 107-21-1 | 1-3 |

Kit Component 74709: SignalFire™ ECL Reagent B

| Chemical name | CAS No | Weight-% |
|----------------------------------|--------------|----------|
| sodium salt of weak mineral acid | TRADE SECRET | 0.1-1 |

SECTION 4. First-aid measures

| | |
|---------------------|---|
| Eye contact | Rinse thoroughly with plenty of water, also under the eyelids. |
| Skin contact | Wash skin with soap and water. |
| Inhalation | Move to fresh air. |
| Ingestion | If swallowed, do not induce vomiting - seek medical advice. Rinse mouth. Never give anything by mouth to an unconscious person. |

Most important symptoms and effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause slight irritation.

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 |
|-------------------------------------|--|

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 Ensure adequate ventilation.
Other information No information available.

Environmental precautions

Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low 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 Take up mechanically, placing in appropriate containers for disposal.

SECTION 7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

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, chromium trioxide, potassium permanganate, sodium peroxide

SECTION 8. Exposure controls/personal protection

Control parameters

| Occupational exposure limit values | | | |
|------------------------------------|--------------------------------|----------|-----------|
| Chemical name | ACGIH TLV | OSHA PEL | NIOSH REL |
| Ethylene glycol | Ceiling: 100 mg/m ³ | - | - |

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.

Eye/face protection Safety glasses with side-shields.
Skin and body protection Wear protective gloves/clothing.
Respiratory protection In case of inadequate ventilation wear respiratory protection.
Hygiene measures Do not eat, drink or smoke when using this product.

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

| | |
|----------------------|---|
| Kit Component | 46935: SignalFire™ ECL Reagent A |
| Physical state | Liquid |
| Appearance | Clear |
| Color | Light pink |
| pH | 9.5 (20 °C) |
| Solubility | Soluble in water |

| | |
|----------------------|---|
| Kit Component | 74709: SignalFire™ ECL Reagent B |
| Physical state | Liquid |
| Color | Colorless |
| pH | 5 (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

No information available

Incompatible Materials

Strong oxidizing agents, chromium trioxide, potassium permanganate, sodium peroxide

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors

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 There is no data available for this product.

Eye contact There is no data available for this product

Skin contact There is no data available for this product.

Ingestion There is no data available for this product.

Information on toxicological effects

Component Information

| Chemical name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------------------------|--------------------|-------------|-----------------|
| trometamol | 5900 mg/kg (Rat) | - | - |
| sodium salt of weak mineral acid | 1200 mg/kg (Rat) | - | - |

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

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. May cause slight irritation.

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

Component Information

| Chemical name | Toxicity to algae | Toxicity to fish | Toxicity to daphnia and other aquatic invertebrates |
|----------------------------------|---|---|---|
| trometamol | - | - | NOEC >100 mg/L (Selenastrum capricornutum) 96 h |
| Ethylene glycol | EC50 6500 - 13000 mg/L (Pseudokirchneriella subcapitata) 96 h | LC50 40761 mg/L (Oncorhynchus mykiss) 96 h LC50 27540 mg/L (Lepomis macrochirus) 96 h LC50 41000 mg/L (Oncorhynchus mykiss) 96 h LC50 14 - 18 mL/L (Oncorhynchus mykiss) 96 h LC50 40000 - 60000 mg/L (Pimephales promelas) 96 h LC50 16000 mg/L (Poecilia reticulata) 96 h | EC50 46300 mg/L (Daphnia magna) 48 h |
| sodium salt of weak mineral acid | - | - | EC50 6.98 - 10.68 mg/L (Ceriodaphnia dubia) 48h |

Persistence and degradability No information available

Bioaccumulation

| Chemical name | Octanol-Water Partition Coefficient |
|---------------|-------------------------------------|
| | |

| | |
|-----------------|-------|
| Ethylene glycol | -1.93 |
|-----------------|-------|

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. Dispose of wastes in an approved waste disposal facility.

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

| Chemical name | TSCA 8(b) | TSCA 12(b) | DSL | NDSL |
|----------------------------------|------------|------------|------------|------------|
| trometamol | Listed | Not Listed | Listed | Not Listed |
| Ethylene glycol | Listed | Not Listed | Listed | Not Listed |
| sodium salt of weak mineral acid | Not Listed | Not Listed | Not 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 % |
|-----------------|----------|-------------------------------|
| Ethylene glycol | 107-21-1 | 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 |
|---------------|--------------------------|------------------------------------|
| | | |

| | | |
|-----------------|---------|------------|
| Ethylene glycol | 5000 lb | Not Listed |
|-----------------|---------|------------|

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 |
|-----------------|------------|---------------|--------------|
| Ethylene glycol | Listed | Listed | Listed |

SECTION 16. Other information

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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