

## Material Safety Data Sheet

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### Section 1. Product Identity Information

Product Name: ECL Reagent Kit  
Catalog Number: K001 K002 K003 K004  
Product Type: Liquid  
Uses: Detection of Horse Radish Peroxidase (HRP) for Research Purposes. This material is sold for research purposes only.  
Manufacture or Supplier: Affinity Biosciences Inc.  
Telephone: 400 623 1050  
E-mail: support@affbiotech.com  
Emergency telephone: +86 0519 83890920

### Section 2. Hazards identification

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product

OSHA/HCS status:

Signal word: No signal word.

Hazard statements: No known significant effects or critical hazards.

Precautionary statements:

Prevention: No signal word.

Response: No signal word.

Storage: No signal word.

Disposal: No signal word.

Hazards not otherwise classified: None known.

### Section 3. Composition/information on ingredients

Substance/mixture: Mixture.

CAS number/other identifiers:

CAS number: Not applicable.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get

Skin contact:	medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	No specific treatment.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training.
See toxicological information (Section 11)	

## Section 5. Fire-fighting measures

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	None known.
Specific hazards arising from the chemical:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products:	No specific data.
Special protective actions for fire-fighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Small spill:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill:	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact

information and Section 13 for waste disposal.

## Section 7. Handling and storage

Protective measures:	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

Appropriate engineering controls:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

Physical state:	Liquid.
Color:	Colorless.
pH:	7.9 to 8.1.
Boiling point:	100°C (212°F).
Flash point:	Not available.
Burning time:	Not applicable.
Burning rate:	Not applicable.
Flammability (solid, gas):	Not available.
Lower and upper explosive (flammable) limits:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Relative density:	Not available.
Solubility:	Soluble in the following materials: cold water and hot water.
Solubility in water:	Not available.
Partition coefficient: noctanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
SADT:	Not available.
Viscosity:	Not available.

## Section 10. Stability and reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	No specific data.
Incompatible materials:	No specific data.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

Acute toxicity:	Not available.
Conclusion/Summary:	To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.
Irritation/Corrosion:	Not available.
Sensitization:	Not available.
Mutagenicity:	Not available.
Carcinogenicity:	Not available.
Reproductive toxicity:	Not available.
Teratogenicity:	Not available.
Aspiration hazard:	Not available.
Information on the likely routes of exposure:	Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects:	
Eye contact:	No known significant effects or critical hazards.
Inhalation:	No known significant effects or critical hazards.
Skin contact:	No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure: Not available.

Long term exposure: Not available.

Potential chronic health effects: Not available.

Acute toxicity estimates: Not available.

## Section 12. Ecological information

Toxicity: Not available.

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Other adverse effects: No known significant effects or critical hazards.

## Section 13. Disposal considerations

Substance: Dispose of unused contents in accordance with international, federal, state, and local regulations.

Contaminated Packaging: Dispose of container in accordance with international, federal, state and local requirements.

## Section 14. Transport information

UN Number: Not Listed.

Class: Not Listed.

Proper Shipping Name: Not Listed.

Packing Group: Not Listed.

Marine Pollutant: Not Listed.

Additional information: None.

## Section 15. Regulatory information

U.S. Federal regulations:

TSCA 8(a) CDR Exempt/Partial exemption: Not determined.

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I Substances: Not Listed.

Clean Air Act Section 602 Class II Substances: Not Listed.

Clean Air Act Section 602 Class II Substances: Not Listed.

Clean Air Act Section 602 Class II Substances: Not Listed.

Clean Air Act Section 602 Class II Substances: Not Listed.

DEA List I Chemicals(Precursor Chemicals):	Not Listed.
DEA List II Chemicals(Essential Chemicals):	Not Listed.
SARA 302/304:	
Composition/information on ingredients:	No products were found.
SARA 304 RQ:	Not applicable.
SARA 311/312:	
Classification:	Not applicable.
Composition/information on ingredients:	No products were found.
State regulations:	
Massachusetts:	None of the components are listed.
New York:	None of the components are listed.
Massachusetts:	None of the components are listed.
New Jersey:	None of the components are listed.
Pennsylvania:	None of the components are listed.
Canada inventory:	At least one component is not listed in DSL but all such components are listed in NDSL
International regulations:	
Australia inventory (AICS):	Not determined.
China inventory (IECSC):	All components are listed or exempted.
Japan inventory:	Not determined.
Korea inventory:	Not determined.
Malaysia Inventory (EHS Register):	Not determined.
New Zealand Inventory of Chemicals (NZIoC):	
Chemical Weapons Convention List	Not listed.
Schedule I Chemicals:	
Chemical Weapons Convention List	Not listed.
Schedule II Chemicals:	
Chemical Weapons Convention List	Not listed.
Schedule III Chemicals:	

## Section 16. Additional information

Key to abbreviations:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations.
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This safety data sheet has been prepared to comply with the requirements of the European Union regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) 1906/2006 and ANSI standard Z400.1-1998.

Note The information on MSDS is correct to the best of our knowledge. Users should make independent decisions regarding completeness of the information based on all sources available. Affinity Biosciences shall not be held liable for any damage resulting from handling or contact with the above product.