

Material Safety Data Sheet

United States
English

Section 1. Chemical product and company identification

Product name **Streptavidin-Alkaline Phosphatase Conjugate, 2 ml**

Catalogue Number **RPN1234**



Material uses Industrial applications: Analytical chemistry. Reagent.

Product type ☒ Liquid.

Validation date 25 May 2011

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Supplier GE Healthcare UK Ltd
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Little Chalfont
Buckinghamshire HP7 9NA
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In case of emergency
US ChemTrec (US) 1-800-424-9300
Canada ChemTrec (US) 1-703-527-3887

2. Hazards identification

Physical state Liquid.

Odor Not available.

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview ☒ DANGER!

☒ MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Precautionary measures ☒ Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not get in eyes, on skin or on clothing. Do not eat, drink or smoke when using this product. Keep container tightly closed. Wash thoroughly after handling.

Routes of entry ☒ Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes Irritating to eyes.

Skin Very toxic in contact with skin. Irritating to skin.

Inhalation ☒ Very toxic by inhalation. Moderately irritating to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Very toxic if swallowed.

Potential chronic health effects

Chronic effects ☒ Contains material that can cause target organ damage.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Developmental effects ☒ No known significant effects or critical hazards.

Fertility effects ☒ No known significant effects or critical hazards.

Target organs ☒ Contains material which causes damage to the following organs: the nervous system, mucous membranes, heart, brain, upper respiratory tract.
☒ Contains material which may cause damage to the following organs: kidneys, gastrointestinal tract, cardiovascular system, skin, eyes, central nervous system (CNS).

Inhalation ☒ Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion ☒ No specific data.



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Skin	Adverse symptoms may include the following: irritation redness
Eyes	Adverse symptoms may include the following: pain or irritation watering redness
Medical conditions aggravated by over-exposure	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Propofol	77-86-1	<20
Magnesium chloride, hexahydrate	7791-18-6	1 - 5
Sodium azide	26628-22-8	1.47

Section 4. First aid measures

Eye contact	Call medical doctor or poison control center immediately. Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin contact	Call medical doctor or poison control center immediately. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation	Call medical doctor or poison control center immediately. Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion	Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Fire-fighting measures

Flammability of the product	In a fire or if heated, a pressure increase will occur and the container may burst.
Extinguishing media	
Suitable	Use an extinguishing agent suitable for the surrounding fire.
Not suitable	None known.
Special exposure hazards	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

Personal precautions	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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
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).
Methods for cleaning up	Stop leak if without risk. Move containers from spill area. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
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.



Section 7. Handling and storage

Handling

Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

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

Product name

Sodium azide

Exposure limits

ACGIH (United States, 2000).

CEIL: 0.11 ppm

OSHA (United States, 1989). Absorbed through skin.

TWA: 0.1 ppm

CEIL: 0.1 ppm

NIOSH (United States, 1994). Absorbed through skin.

TWA: 0.3 ppm

CEIL: 0.1 ppm

ACGIH TLV (United States, 2/2010).

C: 0.29 mg/m³, (as Sodium azide) Form: as Sodium azide

ACGIH TLV (United States, 2/2010). Notes: as hydrazoic acid vapor

C: 0.11 ppm, (as hydrazoic acid vapor) Form: as Hydrazoic acid vapor

NIOSH REL (United States, 6/2009). Absorbed through skin. Notes: NAN3

CEIL: 0.3 mg/m³, (NAN3)

NIOSH REL (United States, 6/2009). Absorbed through skin. Notes: as HN3

CEIL: 0.1 ppm, (as HN3)

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as HN3

CEIL: 0.1 ppm, (as HN3)

OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as NaN3

CEIL: 0.3 mg/m³, (as NaN3)

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. 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.

Hygiene measures

Personal protection

Respiratory

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.

Hands

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.

Eyes

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 or dusts.

Skin

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.

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.

Section 9. Physical and chemical properties

Physical state

Liquid.

Flash point

[Product does not sustain combustion.]

Color

Colorless.

Volatility

0% (v/v)

VOC

0% (w/w) [ISO 11890-1]

Solubility

Easily soluble in the following materials: cold water and hot water.



Section 10. Stability and reactivity

Stability	<input checked="" type="checkbox"/> The product is stable.
Materials to avoid	<input checked="" type="checkbox"/> No specific data.
Hazardous decomposition products	<input checked="" type="checkbox"/> Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	<input checked="" type="checkbox"/> Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions of reactivity	Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture. Not considered to be a product presenting a risk of explosion.

Section 11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Paracetamol	LD50 Oral	Rat	>3000 mg/kg	-
Magnesium chloride, hexahydrate	LD50 Oral	Rat	7333.3 mg/kg	-
Sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
	LD50 Dermal	Rat	50 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-

Conclusion/Summary Not available.

Sensitizer

Conclusion/Summary Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
<input checked="" type="checkbox"/> Sodium azide	A4	-	-	-	-	-

Section 12. Ecological information

Environmental effects ☒ No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
<input checked="" type="checkbox"/> Sodium azide	-	Acute EC50 6.4 to 8.9 mg/L Fresh water	Crustaceans - Water flea - <i>Simocephalus serrulatus</i> - LARVAE	48 hours
	-	Acute EC50 4.2 to 6.2 mg/L Fresh water	Daphnia - Water flea - <i>Daphnia pulex</i> - LARVAE	48 hours
	-	Acute LC50 0.68 mg/L Fresh water	Fish - Bluegill - <i>Lepomis macrochirus</i> - 0.6 g	96 hours

Conclusion/Summary ☒ Not available.

Biodegradability

Conclusion/Summary Not available.

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

Section 13. Disposal considerations

Waste disposal ☒ The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.



Section 14. Transport information

International transport regulations

Not classified.

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Section 15. Regulatory information

HCS Classification	Highly toxic material Irritating material Target organ effects
U.S. Federal regulations	<input checked="" type="checkbox"/> TSCA 8(a) IUR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempted. <input checked="" type="checkbox"/> SARA 302/304/311/312 extremely hazardous substances: Sodium azide SARA 302/304 emergency planning and notification: Sodium azide SARA 302/304/311/312 hazardous chemicals: Sodium azide SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium azide: Immediate (acute) health hazard

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

DEA List I Chemicals (Precursor
Chemicals) ☒ Not listed

DEA List II Chemicals (Essential
Chemicals) ☒ Not listed

SARA 313

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Form R - Reporting requirements	<input checked="" type="checkbox"/> Sodium azide	26628-22-8	1.47
Supplier notification	<input checked="" type="checkbox"/> Sodium azide	26628-22-8	1.47

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts	<input checked="" type="checkbox"/> The following components are listed: SODIUM AZIDE
New York	<input checked="" type="checkbox"/> The following components are listed: Sodium azide
New Jersey	<input checked="" type="checkbox"/> The following components are listed: SODIUM AZIDE
Pennsylvania	<input checked="" type="checkbox"/> The following components are listed: SODIUM AZIDE (NA(N3))

California Prop. 65

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

International regulations

International lists	<input checked="" type="checkbox"/> Australia inventory (AICS): All components are listed or exempted. <input checked="" type="checkbox"/> China inventory (IECSC): All components are listed or exempted. <input checked="" type="checkbox"/> Japan inventory: Not determined. <input checked="" type="checkbox"/> Korea inventory: All components are listed or exempted. <input checked="" type="checkbox"/> New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. <input checked="" type="checkbox"/> Philippines inventory (PICCS): All components are listed or exempted.
Chemical Weapons Convention List Schedule I Chemicals	<input checked="" type="checkbox"/> Not listed
Chemical Weapons Convention List Schedule II Chemicals	<input checked="" type="checkbox"/> Not listed



Chemical Weapons Convention

List Schedule III Chemicals

Not listed

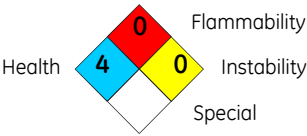
Section 16. Other information

Label requirements

MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES EYE AND SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



Indicates information that has changed from previously issued version.

History

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Notice to reader

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