

ThermoFisher SCIENTIFIC

Material Safety Data Sheet

Creation Date 17-Feb-2010

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Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CK IFCC Reagent A

Cat No. TR14115, BU1411-25LBP, UV14110003-BP, TR14314

Synonyms Creatine Kinase Reagent; CK-NAC Reagent - IFCC Single Vial; CK-NAC IFCC Reagent

Recommended Use In vitro diagnostic

Company Fisher Diagnostics
A Division of Fisher Scientific Company, LLC
A Part of Thermo Fisher Scientific, Inc.
8365 Valley Pike
Middletown, VA 22645-1905
Tel: (800) 528-0494

Emergency Telephone Number
Chemtrec US: (800) 424-9300
Chemtrec EU: (202) 483-7616

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview

Handle as potentially infectious. May cause eye, skin, and respiratory tract irritation . Handle in accordance with good industrial hygiene and safety practice.

Appearance White

Physical State Powder

odor odorless

Target Organs None known.

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes

May cause irritation

Skin

May cause irritation

Inhalation

May cause irritation of respiratory tract

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Chronic Effects

None known.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
L-Cysteine, N-acetyl-	616-91-1	> 10%
Bovine Serum Albumin	9048-46-8	< 2%
Tetrasodium EDTA	64-02-8	< 5%
Glucose	50-99-7	> 15%
Adenosine 5'-(trihydrogen diphosphate), 2'-(dihydrogen phosphate), 5'->5'-ester with 3-(aminocarbonyl)-1-.beta.-D-ribofuranosylpyridinium hydroxide, inner salt, disodium salt	24292-60-2	< 10%
Adenosine 5'-diphosphate monopotassium salt	72696-48-1	< 5%
Disodium adenosine 5'-phosphate hydrate	4578-31-8	< 10%
Adenosine 5'-(hexahydrogen pentaphosphate), 5'.fwdarw.'-ester with adenosine, trilithium salt	75522-97-3	< 1%
Creatine phosphate disodium salt	922-32-7	> 40%
Kinase (phosphorylating), hexo-	9001-51-8	< 1%
Dehydrogenase, glucose 6-phosphate	9001-40-5	< 1%

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion	Do not induce vomiting. Obtain medical attention.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	Not applicable
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..
Unsuitable Extinguishing Media	No information available.
Hazardous Combustion Products	No information available.

Sensitivity to mechanical impact
Sensitivity to static discharge

No information available.
 No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

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

NFPA **Health** 1 **Flammability** 0 **Instability** 0 **Physical hazards** N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling Handle as potentially infectious. Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothing.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 2° and 8 °C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Powder

Appearance White

9. PHYSICAL AND CHEMICAL PROPERTIES

odor	odorless
Odor Threshold	No information available.
pH	6.65 - 6.85 @ 19 - 22°C
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	Not applicable
Melting Point/Range	No information available.
Decomposition temperature °C	No information available.
Flash Point	Not applicable
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	Miscible with water
log Pow	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
L-Cysteine, N-acetyl-	5050 mg/kg (Rat)	Not listed	Not listed
Tetrasodium EDTA	10 g/kg (Rat)	Not listed	Not listed
Glucose	25800 mg/kg (Rat)	Not listed	Not listed

Irritation No information available.

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
Other Adverse Effects	The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Tetrasodium EDTA	EC50 72 h 1.01 mg/L	Not listed	Not listed	EC50 24 h 610 mg/L

Persistence and Degradability	No information available
Bioaccumulation/ Accumulation	No information available
Mobility	No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification
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14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
L-Cysteine, N-acetyl-	X	X	-	210-498-3	-		X	X	X	X	KE-00114 X
Bovine Serum Albumin	XU	X	-	232-936-2	-		X	-	X	X	KE-05-0011 X
Tetrasodium EDTA	X	X	-	200-573-9	-		X	X	X	X	KE-13654 X
Glucose	X	X	-	200-075-1	-		X	X	X	X	KE-17727 X
Adenosine 5'-(trihydrogen diphosphate), 2'-(dihydrogen phosphate), 5'->5'-ester with 3-(aminocarbonyl)-1-.beta.-D-ribofuranosylpyridinium hydroxide, inner salt, disodium salt	-	-	-	246-129-8	-		-	X	-	X	-
Disodium adenosine 5'-phosphate hydrate	-	-	-	224-961-2	-		-	X	X	-	KE-12284 X
Adenosine 5'-(hexahydrogen pentaphosphate), 5'-fwdarw.'-ester with adenosine, trillithium salt	-	X	-	278-237-6	-		-	-	-	-	-
Creatine phosphate disodium salt	-	-	X	-	-		-	-	X	X	-
Kinase (phosphorylating), hexo-	XU	X	-	232-611-5	-		-	-	X	-	-
Dehydrogenase, glucose 6-phosphate	XU	X	-	232-602-6	-		X	-	X	X	KE-09578 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations**TSCA 12(b)** Not applicable**SARA 313**
Not applicable**SARA 311/312 Hazardous Categorization**

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

Clean Water Act
Not applicable**Clean Air Act**
Not applicable**OSHA**
Not applicable**CERCLA**
Not Applicable**California Proposition 65**
This product does not contain any Proposition 65 chemicals.**State Right-to-Know**
Not applicable**U.S. Department of Transportation**
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.**Other International Regulations****Mexico - Grade** No information available**Canada****This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.****WHMIS Hazard Class**
D3 Biohazardous infectious materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
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Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS