SAFETY DATA SHEET

Section 1: Product and Company Identification

1.1 Product name **ALT R1 Reagent**

Substance/mixture mixture

CAS # mixture

Kit number C164-0B

1.2 Recommended product use

Mixture's intended use Diagnostic reagent for IN VITRO quantitative measurement of alanine amino transferase in serum and plasma only.

Product restrictions None known

1.3 Details of the supplier of the safety data sheet

Manufacturer information

Corporate Headquarters Catachem, Inc.
353 Christian Street Oxford, CT 06478
United States of America
www.catacheminc.com

Telephone Phone: +1 (203) 262-0330

Email catachem@catacheminc.com

Distributor information

Distributor Headquarters Nuuchem Diagnostics Ltd.
18 Killuney Rd. Armagh, N. Ireland
United Kingdom

Telephone +44 7778 925522

Email Trevor.templeton@nuuchem.com

1.4 Emergency Telephone

Emergency Phone # +1 (203) 232-1979

Section 2: Hazards Identification

2.1 Substance or mixture classification

Physical state Liquid

Appearance Clear/colorless solution

Emergency overview Health injuries are not known or expected under normal use.

2.2 Label Elements

Signal word None

Hazard Pictogram None

Hazardous substances Ethylenediaminetetraacetic acid dipotassium salt dihydrate, Sodium azide.

OSHA regulatory status This product is not hazardous according to OSHA 29CFR 1910.1200.

2.3 Potential health effects

Routes of exposure Skin contact. Eye contact.

Eyes May cause eye irritation or serious eye damage.

Skin May cause skin irritation or skin burns.

Inhalation In high concentrations, vapors may be irritating to the upper respiratory tract leading to chemical pneumonitis and pulmonary edema.

Ingestion If swallowed, may cause discomfort and lead to gastrointestinal tract burns.

Target organs Eyes, lungs and skin.

Chronic effects Repeated skin contact may cause dermatitis.

Signs and symptoms Direct contact with skin and eyes may cause irritation.

2.4 Potential environmental effects

The product components are not classified as environmentally hazardous. However, this does not eliminate the possibility that large or frequent spills can have a harmful or damaging impact on the environment.

Section 3: Composition / Information on Ingredients

Components:

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Di-K-EDTA	25102-12-9	Acute toxicity, Inhalation (Category 4), H332	<00.2%
Sodium Azide	26628-22-8	Acute toxicity, Oral (Category 2), H300 Acute toxicity, Inhalation (Category 2), H330 Acute toxicity, Dermal (Category 1), H310 Specific target organ toxicity - repeated exposure, Oral (Category 2), Brain, H373 Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 1), H410	<00.2%

Section 4: First Aid Measures

4.1 Description of First aid measures

Eye contact In case of eye contact, immediately flush eyes with fresh water for at least 15 minutes while holding eyelids open. Remove contact lenses immediately if worn by the affected person. Pursue medical treatment if irritation persists.

Skin contact In case of skin contact, remove any or all of contaminated clothing, while rinsing the affected skin with large amounts of water. Pursue medical attention if irritation develops and persists.

Inhalation In case of inhalation, move the affected person to fresh air. Call a physician if symptoms develop or persist.

Ingestion Do NOT induce vomiting. In case of ingestion, make the affected person either drink some water or rinse out their mouth. If any other symptoms persist, contact a medical professional or a poison control center.

Notes to physician Provide general supportive measures and treat symptomatically.

General advice If you feel unwell, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Eye Contact Causes serious eye damage

Skin contact Causes skin irritation

Inhalation Causes corrosion of the breathing system

Ingestion Causes corrosion of the digestion system

Section 5: Fire Fighting Measures

5.1 Flammable properties This product is not flammable.

5.2 Extinguishing media

Suitable extinguishing media

Extinguish with water spray, carbon dioxide (CO2), dry chemical or material appropriate for the surrounding fire.

Unsuitable extinguishing media

No limitations are given.

5.3 Protection of firefighters

Specific hazards arising from the chemical

Carbon oxides

Sulfur oxides

Nitrogen oxides (NOx)

Sodium oxides

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials. Avoid contaminating surface water with fire extinguishing water.

Hazardous combustion Products

Hazardous combustion gases or vapors may develop in the event of fire.

Section 6: Accidental Release Measures

6.1 Personal precautions Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

6.2 Environmental precautions Avoid contamination to enter drains, sewers or watercourses.

6.3 Methods for containment and cleaning up

Absorb spillage with non-combustible, absorbent material such as sand, diatomaceous earth, vermiculite or other inert material. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.

6.4 Other information Clean up in accordance with all applicable regulations.

Section 7: Handling and Storage

7.1 Safe Handling Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Handle and open container with care.

Hygiene measures Wash exposed skin thoroughly after handling.

7.2 Storage Store at 2˚c to 8˚c. Store in a closed container away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

8.1 Occupational exposure limits

No exposure limits noted for ingredient(s).

Exposure guidelines Follow standard monitoring procedures.

Engineering controls Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.

8.2 Personal protective equipment

Eye / face protection Wear appropriate safety glasses, goggles or face shields.

Skin protection Wear lab coat or other protective garments. Wear protective gloves. Remove any contaminated clothing promptly.

Respiratory protection Under normal conditions, respirator is not required.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Other information Do NOT eat, drink or smoke during use.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Physical state	Liquid
Form	Liquid
Color	Clear/colorless
Odor	Odorless
Odor threshold	No data available
pH	7-8 @ (25°C)
Vapor pressure	No data available
Vapor density	No data available
Boiling point	No data available
Viscosity (mm^2/s)	No data available
Melting/Freezing point	No data available
Solubility (water)	Soluble
Specific gravity	1-1.1
Flash point	No data available

Flammability limits in air, upper, % by volume

No data available

Flammability limits in air, lower, % by volume

No data available

Decomposition temperature No data available

Auto-ignition temperature	No data available
Evaporation rate	No data available

Section 10: Stability and Reactivity Information

10.1 Reactivity No data available

10.2 Chemical stability Material is stable under normal conditions.

10.3 Possibility of hazardous Reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid No data available

10.5 Incompatible materials No data available

10.6 Hazardous decomposition Products

In the event of fire, refer to Section 5.3

Section 11: Toxicological Information

11.1 Information on toxicological effects

Sensitization	Not classified.
Acute effects	May cause discomfort if swallowed.
Local effects	Ingestion may cause irritation and nausea.
Chronic effects	No data available.
Carcinogenicity	Not classified to carcinogenicity to humans.
Epidemiology	No epidemiological data is available for this product.
Mutagenicity	Not classified.
Reproductive effects	Not classified.
Symptoms and target organs	
	Direct contact with skin and eyes may cause irritation.
Additional information	No other specific acute or chronic health impact noted.

Section 12: Ecological Information

12.1 Toxicity

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

12.2 Persistence and degradability

No data is available on the degradability of this product.

12.3 Bioaccumulation/Accumulation

No data available.

12.4 Mobility in environmental media

The product is completely soluble in water.

Section 13: Disposal Considerations

13.1 Disposal methods

Disposal instructions Contaminated instruments and surfaces should be disinfected in accordance with your employer's chemical-specific and universal/standard precautions.

Waste from residues / unused products

Dispose in accordance with all applicable local and national regulations. Avoid releasing unused products into drainage systems and/or into the environment.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: Transport Information

DOT Not regulated as a hazardous material by DOT.

IATA Not regulated as dangerous goods.

IMDG Not regulated as dangerous goods.

TDG Not regulated as dangerous goods.

Section 15: Regulatory Information

US federal regulations This product is not hazardous according to OSHA 29CFR 1910.1200. This mixture is a component of an in vitro diagnostic device regulated by the U.S. Food and Drug Administration.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpart. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lb.) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR370) No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Non-controlled

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

Mexico regulations This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

Section 16: Other Information

Recommended restrictions Use in accordance with supplier's recommendations.

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 0
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 0
Flammability: 0
Instability: 0

Disclaimer The above information is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Catachem Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.