



**Abbott**

**Release Date:** 9/20/24

<b>REF</b>	
<b>GTIN</b>	Product Name

<b>07P7220</b> <b>00380740121594</b> <b>07P7230</b> <b>00380740121600</b>	<i>Alinity c Carbon Dioxide Reagent Kit</i>
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Components:

<b>07P72 R1</b>	<b>Alinity c Carbon Dioxide (R1)</b>
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Abbott Customers:

For additional information, please contact your Abbott Customer Support Center Representative by calling 1-800-527-1869, 1-800-323-9100, or 1-800-235-5396.

Abbott employees:

For additional information relative to the content of the SDSs, please contact your local Safety Representative.



# Safety Data Sheet

according to OSHA Hazard Communication standard 29CFR 1910.1200


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Last alteration on 09/20/2024

## 1 Identification

- **Product name:** Alinity c Carbon Dioxide (R1)
- **ADD List number:** 07P72 R1
- **Application of the substance / mixture:** For In Vitro Diagnostic Use
- **Manufacturer / Supplier:**  
Abbott Diagnostics  
100 Abbott Park Road  
Abbott Park, IL 60064-3500  
  
Phone: 1-877-4 ABBOTT
- **Department issuing SDS:** Abbott Diagnostics Environmental Health and Safety
- **Emergency telephone number**  
Contact the CHEMTREC® Emergency Call Center for assistance with transportation or hazardous materials emergencies (24 hours/day, 7 days/week). Refer to Abbott customer number 675805.  
Telephone (800) 424-9300 (toll-free) if you are calling from within the United States, Canada, Puerto Rico and the Virgin Islands.

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
The classification was made according to U.S. OSHA 29 CFR 1910.1200 and 1910.1030 and applicable European regulations, and is expanded upon from supplier company and/or literature data.  
Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.
- **Label elements**
- **GHS label elements:** The product is labelled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  

- **Signal word:** Warning
- **Hazard-determining components of labeling:**  
Sodium azide  
ethylene glycol
- **Hazard statements:**  
H373 May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements:**  
P260 Do not breathe mist / vapors / spray.  
P280 Wear protective gloves/protective clothing/eye protection.  
P314 Get medical advice/attention if you feel unwell.  
P501 Dispose of contents / container in accordance with local regulations.



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## Product name: Alinity c Carbon Dioxide (R1)

· **Routes of Exposure:**

- Skin: No adverse effects expected when used as directed.
- Eye: No adverse effects expected when used as directed.
- Inhalation: No adverse effects expected when used as directed.
- Ingestion: No adverse effects expected when used as directed.

· **Health:** No adverse effects expected if used as directed.

· **Fire:** Noncombustible

· **Reactivity:** Minimal hazard - Stable, even in a fire. Not reactive with water. Not an oxidizer.

· **IARC (International Agency for Research on Cancer) Group 3**

· **Interpretation of the IARC listing**

Group 3: The substance or mixture listed above is not classifiable as to carcinogenicity in humans. Evidence of carcinogenicity is inadequate in humans and inadequate or limited in experimental animals.

### 3 Composition/information on ingredients

· **Chemical characterization:** Mixture of chemical and/or biological substances for in vitro diagnostic use.

· **Hazardous chemical ingredients per U.S. OSHA criteria (29 CFR 1910.1200 Hazard Communication):**

CAS: 77-86-1	Tris hydroxymethyl aminomethane	5.78%
CAS: 107-21-1	ethylene glycol	5.31%
CAS: 7791-18-6	Magnesium chloride hexahydrate	1.50%
CAS: 26628-22-8	Sodium azide	0.08%
CAS: 9002-93-1	polyethylene glycol octylphenyl ether	0.01%

### 4 First-aid measures

· **After inhalation:** Remove from source of exposure. If irritation or signs of toxicity occur, seek medical attention.

· **After skin contact:**

Take off any clothing that the product touched.

Rinse skin with running water for 15 to 20 minutes. Seek medical attention if irritation or signs of toxicity occur.

· **After eye contact:**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists, get medical advice/attention. Wash hands after handling.

· **After swallowing:** Rinse mouth with water. If irritation or signs of toxicity occur, seek medical attention.

· **Most important symptoms and effects, both acute and delayed:**

Kidney effects

Liver effects

Headache

Disorientation

Dizziness

Respiratory irritation

· **Medical conditions aggravated by exposure:**

Pre-existing respiratory ailments

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## Product name: Alinity c Carbon Dioxide (R1)

Pre-existing liver condition  
Pre-existing kidney ailments  
Pre-existing cardiovascular ailments  
Pre-existing eye ailments  
Pre-existing nervous system ailments

## 5 Fire-fighting measures

### · Suitable extinguishing agents

Dry chemical, carbon dioxide (CO<sub>2</sub>), water spray or regular foam.

- Caution: CO<sub>2</sub> will displace air in confined spaces and may cause an oxygen-deficient atmosphere.
- For larger fires: There are no unique chemical or reactivity hazards that would impact firefighting decisions related to this product. Use firefighting measures that suit the environment.

### · Special hazards arising from the substance or mixture

There are no unique chemical or reactivity hazards that would impact firefighting decisions due to the chemicals in this product.

No further relevant information available.

### · Protective equipment

For large fires, wear appropriate heat- and flame-resistant personal protective equipment and a NFPA/NIOSH approved positive-pressure, self-contained breathing apparatus.

## 6 Accidental release measures

### · Personal precautions, protective equipment and emergency procedures

Minimize exposure by using appropriate personal protective equipment as listed in Section 8. Stop leak if possible. Keep unprotected persons away.

### · Environmental precautions

Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

### · Methods and material for containment and cleaning up

Blot up small volumes of spilled or spattered product with paper towels or similar materials.

- Contain larger spills by placing absorbants around the outside edges of the spill. Absorb with any material suitable for water-based liquids - e.g. paper towels, universal sorbents, sand, diatomite, sawdust, etc.

Clean the affected area. Suitable cleaners are:

- warm water and detergent or similar cleansing agent

This product contains sodium azide, which is toxic and reactive. See Sections 10 and 13 for additional information that could affect handling and disposal of contaminated spill materials.

NOTE FOR LARGE-VOLUME SPILL: This product contains sodium azide, which reacts with acid to liberate hydrazoic acid, a very toxic gas. Select a disinfectant with the following properties if disinfection of materials used to absorb a large volume of spilled product is required:

- Do not use any chemical or product with a pH below 6 to disinfect waste that contains sodium azide. Hydrazoic acid, a toxic gas, will be released when the pH is lower than 6.
- Do not use any chemical or product that contains mercury or any other metal to disinfect waste that contains sodium azide. This will create metal azide compounds, which can be highly explosive under pressure or shock (percussion).
- Select a disinfectant that does not bubble, effervesce or otherwise generate aerosols.

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## Product name: Alinity c Carbon Dioxide (R1)

- Do not use excess disinfectant.
- Failure to follow manufacturer's directions may lead to unexpected reactions with the waste.
- Do not use a disinfectant if you do not have the proper facility, equipment and other appropriate protective measures available to work with it safely.

Dispose of spilled and contaminated material in accordance with Federal, State, and Local regulations. See Section 13 for information that may impact disposal of materials contaminated with this product.

### Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

## 7 Handling and storage

### Precautions for safe handling:

Avoid direct contact with material. If handled, wash thoroughly. Practice general safety precautions.

**Information about protection against explosions and fires:** The product is not flammable.

**Requirements to be met by storerooms and receptacles:** Store only in the original container.

**Information about storage in one common storage facility:** Store in original packaging.

### Further information about storage conditions:

Refer to the package insert or product label for additional information on storage conditions for product quality.

## 8 Exposure controls/personal protection

### Components with Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

#### CAS: 107-21-1 ethylene glycol (5.31 %)

TLV	STEL/C: 10** mg/m <sup>3</sup> , 50* ppm TWA: 25* ppm *vapor fraction:**inh. fraction, aerosol only, A4
WEEL	I (2)

#### CAS: 7647-01-0 hydrochloric acid (0.92 %)

PEL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
REL	Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm
TLV	Ceiling limit value: 2 ppm A4

#### CAS: 26628-22-8 Sodium azide (0.08 %)

REL	Ceiling limit value: 0.3** mg/m <sup>3</sup> , 0.1* ppm *as HN <sub>3</sub> ; **as NaN <sub>3</sub> ; Skin
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## Product name: Alinity c Carbon Dioxide (R1)

TLV	Ceiling limit value: 0.29** mg/m <sup>3</sup> , 0.11* ppm *as HN3 vapor **as NaN <sub>3</sub> , A4
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· **General protective and hygienic measures:**

Always maintain good housekeeping and follow general precautionary measures. Do not eat, drink or store food and beverages in areas where chemicals or specimens are used. Wash hands before breaks, after handling reagents and specimens, and at the end of the workshift.

· **Breathing equipment:**

Normal use and storage of product - respiratory protection is not necessary if room is well ventilated.

Small-volume spills (e.g. small enough to clean up with a paper towel or small sorbent pad) - respiratory protection should not be necessary if room is well ventilated.

Other unusual conditions (e.g. volume spilled too big to clean up with materials in arm's reach) - Use appropriate NIOSH-approved air-purifying respirator if airborne chemical concentrations may exceed the exposure limit (if any) listed above.

Hazardous Materials Emergencies or Firefighting - use NIOSH/NFPA-approved respiratory protection.

· **Hand protection:**

Wear impervious gloves if hand contact with the material is anticipated. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

· **Material of gloves and breakthrough time of the glove material:**

The glove material must be suitable for use in a microbiological laboratory and have a measured breakthrough time of at least 30 minutes, such as those with a Class 2 protection index per EN374 (or equivalent standard applicable in your region). NOTE: This recommendation applies only to the product stated in this Safety Data Sheet. When dissolving in or mixing with other substances, contact the supplier of approved gloves.

· **Eye protection:**

Wear safety glasses or other protective eyewear. If splash potential exists, wear full face shield or goggles.

· **Body protection:**

Normal use: protect personal clothing from spatters and small spills. Wear a laboratory coat (or other protective clothing required by your institution).

Larger spills (e.g. that can saturate cloth): wear appropriate water-repellant covering over clothing.

## 9 Physical and chemical properties

· **General Information**

- **Color:** Yellow
- **Odor:** Odorless
- **Melting point/Melting range:** Not determined
- **Boiling point/Boiling range:** Not determined
- **Flammability (solid, gaseous)** Not applicable
- **Explosion limits**
- **Lower:** Not determined
- **Upper:** Not determined



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## Product name: Alinity c Carbon Dioxide (R1)

- **Flash point** Not applicable
- **pH-value at 20 °C (68 °F)** 7.45-7.65
- **Dynamic:** Not determined
- **Solubility in / Miscibility with**
- **Water:** Fully miscible
- **Vapor pressure:**
- **Density at 20 °C (68 °F)** 1.049 g/cm<sup>3</sup> (8.7539 lbs/gal)
- **Form:** Solution
- **Auto igniting** Product is not self-igniting.
- **Danger of explosion** Product does not present an explosion hazard.
- **Water:** 83.7 %
- **Solids content:** 8.7 %
- **Evaporation rate:** Not determined

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**  
This product contains sodium azide. Sodium azide solutions are reported to:
  - react with acids to release hydrazoic acid, a very toxic gas. Higher quantities of hydrazoic acid are released as the solution becomes more acidic (i.e., as the pH of the solution gets lower). Low quantities of hydrazoic acid can be released from sodium azide in water.
  - react with certain metals (copper, lead, silver, brass) to form explosive metal azide compounds. Violent explosions have been reported during plumbing work on drain systems containing accumulations of azide on copper, lead, brass, or solder.
- **Conditions to avoid:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD50/LC50 values for hazardous ingredients per OSHA criteria:**

· <b>Ingredients (100% pure substance/s):</b>		
<b>CAS: 77-86-1 Tris hydroxymethyl aminomethane</b>		
Oral	LD50	5,900 mg/kg (rat)
	LDLo	1,000 mg/kg (rabbit)
<b>CAS: 107-21-1 ethylene glycol</b>		
Oral	LD50	1,650-6,610 mg/kg (mammal)
		5,840 mg/kg (rat)
	LDLo	398-796 mg/kg (human)



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## Product name: Alinity c Carbon Dioxide (R1)

Dermal	LD50	9,530 mg/kg (rabbit)
	Mutagenicity	(Ames Assay)
	Target Organ Effects	(mammal) Excessive intake of ethylene glycol may produce toxicity to the central nervous system, kidney, liver, respiratory system, and heart. In animal studies, ethylene glycol affected fertility, embryo and fetal development, and produced fetal abnormalities. Inhalation of 200 mg/m <sup>3</sup> ethylene glycol may produce respiratory irritation and burning of the throat. Higher concentrations may produce headache, dizziness and drowsiness.

### CAS: 7791-18-6 Magnesium chloride hexahydrate

Oral	LD50	8,100 mg/kg (rat) LD50 (ip) = 775mg/kg in mice LDlo (iv) = 250 mg/kg in guinea pigs
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### CAS: 9002-93-1 polyethylene glycol octylphenyl ether

Oral	LD50	1,800 mg/kg (rat)
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- **Specific target organ toxicity - repeated exposure**  
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard**
- **Carcinogenic categories**

### · IARC (International Agency for Research on Cancer)

CAS: 7647-01-0	hydrochloric acid	3
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### · NTP (National Toxicology Program)

None of the ingredients is listed.
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### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.
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### · Target organs/systems:

- Liver
- Kidneys
- Cardiovascular system
- Reproductive system
- Central nervous system
- Respiratory system

## 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable



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## Product name: Alinity c Carbon Dioxide (R1)

- **Additional ecological information**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.

### 13 Disposal considerations

- **Recommendation for disposal of unused product:**  
Dispose in accordance with federal, state and local regulations and institutional requirements. Waste containing this product may be considered hazardous per U.S. EPA, state or local regulations. The following may be particularly important when identifying appropriate disposal:  
- Contains sodium azide. See Section 10 when considering how to appropriately dispose of unused product. For drain systems with pipes or solder containing copper, lead, brass and/or silver, flush drains thoroughly with copious amounts of water to prevent the formation of potentially explosive metal azides in plumbing. Detailed information about azides in drains is available from the U.S. NIOSH Current Intelligence Bulletin No. 13 (August 16, 1976).
- **Recommendation for disposal of packaging:**  
Non-contaminated packaging may be used for recycling. Refer to applicable local regulations and institutional policies. For disposal of contaminated packaging, refer to applicable local regulations and institutional policies.
- **Recommended cleansing agent:** Water with cleansing agents, if necessary.

### 14 Transport information

· DOT, ADN, IMDG, IATA none

· **UN proper shipping name**  
· DOT, ADR, ADN, IMDG, IATA none

· **Transport hazard class(es)**  
· DOT, ADR, ADN, IMDG, IATA  
· Class none  
· DOT, IMDG, IATA none

· **Environmental hazards**  
· **Marine pollutant:** No

· **Additional information**

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· DOT  
· **Remarks:** Not restricted for transportation.  
· IMDG  
· **Remarks:** Not restricted for transportation.  
· IATA  
· **Remarks:** Not restricted for transportation.



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**Product name: Alinity c Carbon Dioxide (R1)**

## 15 Regulatory information

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA):**

· **Section 302/304 (40CFR355.30 / 40CFR355.40):**

CAS: 7647-01-0	hydrochloric acid
CAS: 26628-22-8	Sodium azide

· **Section 313 (40CFR372.65):**

CAS: 107-21-1	ethylene glycol
CAS: 7647-01-0	hydrochloric acid
CAS: 26628-22-8	Sodium azide

· **Hazardous Air Pollutants**

CAS: 107-21-1	ethylene glycol
CAS: 7647-01-0	hydrochloric acid

· **California Proposition 65 (USA):**

· **Chemicals known to cause cancer:**

The product does not contain listed substances.

· **Chemicals known to cause female reproductive toxicity:**

None of the ingredients is listed.

· **Chemicals known to cause male reproductive toxicity:**

None of the ingredients is listed.

· **Chemicals known to cause developmental reproductive toxicity:**

CAS: 107-21-1	ethylene glycol
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## 16 Other information

The information and recommendations contained herein are based upon information or tests believed to be reliable. Abbott Laboratories does not guarantee the accuracy or completeness of this information or recommendations contained herein, NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE.

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The information in this Safety Data Sheet (SDS) reflects the most current hazard information for this product.

· **Department issuing SDS**

- Abbott Diagnostics Safety, Health and Environmental Assurance  
Department 0571



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## Product name: Alinity c Carbon Dioxide (R1)

### · Contact

- General information about this product:

Abbott Diagnostics  
Technical Support  
100 Abbott Park Road  
Abbott Park, IL 60064-3500

Phone: 1-877-4 ABBOTT

· **Date of preparation / last revision 09/20/2024 / 34**

### · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (Division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: persistent, bioaccumulative and toxic

vPvB: very persistent and very bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

· **\* Sections marked with an asterisk (\*) have been altered since the previous version.**