

SAFETY DATA SHEET

ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 1

1. IDENTIFICATION

Product Name: ONCO/Reveal Lung & Colon Cancer Assay Kit,
48 reactions per kit, PN# HDA-LC-2001-48

Box 1 Components:

- LC Oligo Pool, PN# LC-103A-48
- Gene Specific PCR Master Mix, PN# MM-9001-48
- Uracil-DNA Glycosylase (UDG), PN# EN-9002-48
- Positive Control, PN# PC-9001-48

Company details

Name: Pillar Biosciences, Inc.
Address: 12 Michigan Drive
Natick, MA 01760 USA
Telephone: +1 508-655-3027

Emergency response

In case of emergencies: CHEMTREC
1-800-424-9300 (U.S. or Canada)
1-703-527-3887 (International)

Recommended use of product

For use by trained professionals
only

2. HAZARD(S) IDENTIFICATION**GHS classification**

The product is a kit consisting of individual ingredients. The classification of individual components can be found in section 3.

3. COMPOSITION/INFORMATION ON INGREDIENTS**LC Oligo Pool, PN# LC-103A-48****GHS classification**

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 1**

Contains compounds considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

Dimethyl sulfoxide, DMSO

Gene Specific PCR Master Mix, PN# MM-9001-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

Uracil-DNA Glycosylase (UDG), PN# EN-9002-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

Positive Control, PN# PC-9001-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

Chemical Name	CAS	Concentration
Dimethyl sulfoxide, DMSO	67-68-5	≤ 20%

NFPA	
Health:	1
Fire:	1
Reactivity:	0

4. FIRST-AID MEASURES

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Route of Exposure:

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
Skin Contact:	Remove contaminated clothing. Wash affected area with soap and water.
Eye contact:	Remove contact lenses. Immediately flush opened eye with water. Wash eyes with plenty of water for at least 15 minutes. Consult a physician.
Swallowed:	Keep respiratory tract clear. Rinse mouth with water. Do not induce vomiting. Consult a physician.
General:	Consult a physician after significant exposure and/or persistent symptoms.
Note to Physician:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing agents:	For small fires use carbon dioxide, dry chemical, water spray, or foam extinguishers. Cool closed containers exposed to fire with water spray. For large fires use extinguishing media suitable for the surrounding environment.
Hazardous Combustion products:	Carbon oxides, Sulphur oxides, nitrogen oxides.
Special protective equipment and precautions for fire-fighters:	Wear self-contained breathing apparatus if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	Use personal protective equipment (PPE). Avoid breathing vapors, mist, or gas. Use in well-ventilated area.
Environmental precautions:	Do not allow product to enter drains, sewage, surface or ground water.

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 1

Methods and materials for containment and clean up:

Remove spilled liquids mechanically with inert absorbent material and dispose according to local regulations. Keep in appropriate, closed containers for disposal. Report spills to the environment of any spill materials that reach the RQ.

7. HANDLING AND STORAGE

Precautions for safe handling:

- Use good laboratory practices. Do not eat, drink, or smoke in operation area.
- Avoid formation of aerosol.
- Immediately remove soiled or contaminated clothing.
- Wash hands before and after use.
- Avoid contact with eyes or skin.
- Use in a well-ventilated area and keep containers tightly sealed.

Conditions for safe storage:

Store according to individual container labelling and keep container tightly sealed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

LC Oligo Pool, PN# LC-103A-48

Hazardous components

Dimethyl sulfoxide, DMSO

Control parameters

Components with workplace control parameters:

Components	CAS	Value type	Permissible concentration	Basis
Dimethyl Sulfoxide, DMSO	67-68-5	TWA	250 ppm	US WEEL

Appropriate engineering controls:

Ensure adequate ventilation, especially in confined areas

Personal protective equipment:

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10. STABILITY AND REACTIVITY**LC Oligo Pool, PN# LC-103A-48****Hazardous components**

Dimethyl sulfoxide, DMSO

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	None known
Conditions to avoid:	Stable under normal conditions
Incompatible materials:	Strong oxidizers, perchlorates
Hazardous decomposition products:	Methane, ethylene, and sulfur dioxide

11. TOXICOLOGICAL INFORMATION**LC Oligo Pool, PN# LC-103A-48****Hazardous components**

Dimethyl sulfoxide, DMSO

Acute oral toxicity:	May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea
Acute inhalation toxicity:	May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Exposure to high concentrations of Dimethyl sulfoxide could cause lowering of consciousness.
Acute dermal toxicity:	Unknown
Aspiration toxicity:	Not classified
Skin corrosion/irritation-Assessment:	Dimethyl sulfoxide may irritate the skin and mucous membranes
Serious eye damage/eye irritation-	May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

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Assessment:	Dimethyl sulfoxide may accelerate skin absorption of other materials. A skin irritation assay performed in rabbit (OECD 404) revealed no more than a very slight or well-defined erythema, which disappeared in 3 days
Respiratory or skin sensitization- Assessment:	Sensitization tests using DMSO performed in guinea pigs and mice were uniformly negative. A skin sensitization assay performed in humans was also negative.
Genotoxicity - Assessment:	
IARC:	DMSO was negative for genotoxicity when tested in the Salmonella typhimurium pre-incubation protocol at concentrations of DMSO (100, 333, 1000, 3333, 10000 ug) /with strains TA97, TA98, TA100, TA102, TA104, TA1537, and TA1538 DMSO was tested in Chinese hamster ovary cells to a maximum concentration of 5000 ug/mL with and without metabolic activation. DMSO did not induce cell toxicity or cell cycle delay, and did not induce an increase in the incidence of SCEs.
OSHA:	There are no standard carcinogenicity studies conducted with DMSO, but considering the lack of genotoxic potential, the absence of target organs in many repeated dose toxicity studies performed with diverse animal species, routes of administration and exposure durations up to 2 years and the results of some initiation/promotion studies, it is not scientifically justified to perform a carcinogenicity study.
NTP:	This product does not contain any carcinogens or potential carcinogens as listed by ACGIH, IARC, OSHA, or NTP.
Reproductive toxicity:	In a Reproduction/Developmental Toxicity Screening Test performed following OECD 421, the NOAEL for parental toxicity, reproductive

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performance (mating and fertility) and toxic effects on the progeny was considered to be 1000 mg/kg/day

STOT - single exposure:

No data available

STOT - repeated exposure:

No data available

12. ECOLOGICAL INFORMATION**LC Oligo Pool, PN# LC-103A-48****Hazardous components**

Dimethyl sulfoxide, DMSO

Ecotoxicity:

Toxicity to fish:

Danio rerio: LC50 > 25 g/L, 96-hr, freshwater, static;

Toxicity to algae:

Green algae: EC50 = 27448.3 mg/, 96-hr
Green algae: ChV = 426.9 mg/L, 96-hr

Toxicity to fish (chronic):

No data available

Toxicity to bacteria:

No data available

Persistence and degradability:

- DMSO is not considered as persistent in environment
- No biodegradation data available
- Low bioconcentration expected in aquatic organisms
- May adsorb to soil particles

Bioaccumulative potential:

Octanol/water partition coefficient:

Based on its log Kow value (-1.35) DMSO has a low potential for bioaccumulation

Mobility in soil:

DMSO Log Koc is estimated as 0.64, using a log Kow of -1.35 and a regression-derived equation. This estimated Koc value suggests that DMSO is expected to have very high mobility in soil.

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13. DISPOSAL CONSIDERATIONS**LC Oligo Pool, PN# LC-103A-48****Hazardous components**

Dimethyl sulfoxide, DMSO

Disposal methods:

- Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Local regulations may be more stringent than regional or national requirements
- Wear chemically compatible gloves and protective clothing. Avoid breathing vapor. Place product in appropriately labeled container for disposal
- Do not allow product to contaminate waterways

Contaminated packaging:

- Empty remaining contents and dispose as if unused product
- Empty containers should be taken to an approved waste handling site for recycling or disposal
- Do not reuse containers

14. TRANSPORT INFORMATION**International Regulation**

IATA-DGR:

Not regulated as a dangerous good

IMDG-Code:

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable, packaged goods

National Regulations

49 CFR:

Not regulated as a dangerous good

15. REGULATORY INFORMATION

Use general safety regulations when handling chemicals.

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 1

Inventories:	The hazardous components are listed on the following inventories
AICS:	DMSO
DSL:	DMSO
ENCS:	DMSO
IECSC:	DMSO
KECL:	DMSO
NZIoC:	DMSO
PICCS:	DMSO
REACH:	DMSO
TSCA:	DMSO

CERCLA Reportable Quantity: No ingredients listed

SARA

302:	No ingredients listed
304 Extremely hazardous substances reportable quantity:	No ingredients listed
311/312:	No ingredients listed
313:	No ingredients listed

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 or Class 2 ozone depletors

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances, Priority Pollutants, or Toxic Pollutants under the CWA

Carcinogenetic categories:

Environmental Protection Agency (EPA):	No ingredients listed
International Agency for	No ingredients listed

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 1

Research on Cancer (IARC):

National Toxicology Program (NTP): No ingredients listed

Threshold Limit Value Not established

established by ACGIH:

German Maximum Workplace Concentration (MAK): 50 ml/m³

National Institute for Occupational

Safety and Health (NIOSH): No PEL established

Occupational Safety and

Health Administration (OSHA): No PEL established

California Proposition 65:

Chemicals known to cause cancer: No ingredients listed

Reproductive toxicity in females: No ingredients listed

Reproductive toxicity in males: No ingredients listed

Developmental toxicity: No ingredients listed

U.S. State Regulations:

Massachusetts Right to Know: No ingredients listed

New Jersey Right to Know: Dimethyl sulfoxide (DMSO)

Pennsylvania Right to Know: No ingredients listed

Water Hazard class: Slightly hazardous for water

16. OTHER INFORMATION

The information provided is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed merely as guidance for the safe handling, use, processing, storage, transportation, disposal and release of the specific contents. The information relates only to the specific material designated and may not be valid for material used in combination with any other materials or in any process not explained within the text.

Date of Preparation of SDS:

13 February 2019

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2****1. IDENTIFICATION**

Product Name: ONCO/Reveal Lung & Colon Cancer Assay Kit,
48 reactions per kit, PN# HDA-LC-2001-48

Box 2 Components:

- Indexing PCR Master Mix, PN# MM-9004-48
- A501 Index Solution, PN# AI-501-48
- A502 Index Solution, PN# AI-502-48
- A503 Index Solution, PN# AI-503-48
- A504 Index Solution, PN# AI-504-48
- A505 Index Solution, PN# AI-505-48
- A506 Index Solution, PN# AI-506-48
- A507 Index Solution, PN# AI-507-48
- A508 Index Solution, PN# AI-508-48
- A701 Index Solution, PN# AI-701-48
- A702 Index Solution, PN# AI-702-48
- A703 Index Solution, PN# AI-703-48
- A704 Index Solution, PN# AI-704-48
- A705 Index Solution, PN# AI-705-48
- A706 Index Solution, PN# AI-706-48

Company details

Name: Pillar Biosciences, Inc.
Address: 12 Michigan Drive
Natick, MA 01760 USA
Telephone: +1 508-655-3027

Emergency response

In case of emergencies: CHEMTREC
1-800-424-9300 (U.S. or Canada)
1-703-527-3887 (International)

Recommended use of product

For use by trained professionals
only

2. HAZARD(S) IDENTIFICATION

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2****GHS classification**

The product is a kit consisting of individual ingredients. The classification of individual components can be found in section 3.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Indexing PCR Master Mix, PN# MM-9004-48****GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A501 Index Solution, PN# AI-501-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A502 Index Solution, PN# AI-502-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A503 Index Solution, PN# AI-503-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A504 Index Solution, PN# AI-504-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2

A505 Index Solution, PN# AI-505-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A506 Index Solution, PN# AI-506-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A507 Index Solution, PN# AI-507-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A508 Index Solution, PN# AI-508-48**GHS classification**

Not a hazardous substance or mixture.

Hazardous components

None.

A701 Index Solution, PN# AI-701-48**GHS classification**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

A702 Index Solution, PN# AI-702-48**GHS classification**

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

A703 Index Solution, PN# AI-703-48**GHS classification**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

A704 Index Solution, PN# AI-704-48**GHS classification**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

A705 Index Solution, PN# AI-705-48**GHS classification**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

A706 Index Solution, PN# AI-706-48**GHS classification**

Contains less than 0.1% of a compound considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

None.

4. FIRST-AID MEASURES

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2****Route of Exposure:**

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
Skin Contact:	Remove contaminated clothing. Wash affected area with soap and water.
Eye contact:	Remove contact lenses. Immediately flush opened eye with water. Wash eyes with plenty of water for at least 15 minutes. Consult a physician.
Swallowed:	Keep respiratory tract clear. Rinse mouth with water. Do not induce vomiting. Consult a physician.
General:	Consult a physician after significant exposure and/or persistent symptoms.
Note to Physician:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing agents:	For small fires use carbon dioxide, dry chemical, water spray, or foam extinguishers. Cool closed containers exposed to fire with water spray. For large fires use extinguishing media suitable for the surrounding environment.
Hazardous Combustion products:	Carbon oxides, Sulphur oxides, nitrogen oxides.
Special protective equipment and precautions for fire-fighters:	Wear self-contained breathing apparatus if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	Use personal protective equipment (PPE). Avoid breathing vapors, mist, or gas. Use in well-ventilated area.
Environmental precautions:	Do not allow product to enter drains, sewage, surface or ground water.

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2

9. PHYSICAL AND CHEMICAL PROPERTIES**Hazardous components**

None.

10. STABILITY AND REACTIVITY**Hazardous components**

None.

11. TOXICOLOGICAL INFORMATION**Hazardous components**

None.

12. ECOLOGICAL INFORMATION**Hazardous components**

None.

13. DISPOSAL CONSIDERATIONS**Hazardous components**

None.

Disposal methods:

- Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Local regulations may be more stringent than regional or national requirements
- Wear chemically compatible gloves and protective clothing. Avoid breathing vapor. Place product in appropriately labeled container for disposal
- Do not allow product to contaminate waterways

Contaminated packaging:

- Empty remaining contents and dispose as if unused product
- Empty containers should be taken to an approved waste handling site for recycling or disposal
- Do not reuse containers

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2

14. TRANSPORT INFORMATION**International Regulation**

IATA-DGR:	Not regulated as a dangerous good
IMDG-Code:	Not regulated as a dangerous good
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable, packaged goods

National Regulations

49 CFR:	Not regulated as a dangerous good
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15. REGULATORY INFORMATION

Use general safety regulations when handling chemicals.

Inventories: The hazardous components are listed on the following inventories

AICS:	No ingredients listed
DSL:	No ingredients listed
ENCS:	No ingredients listed
IECSC:	No ingredients listed
KECL:	No ingredients listed
NZIoC:	No ingredients listed
PICCS:	No ingredients listed
REACH:	No ingredients listed
TSCA:	No ingredients listed

CERCLA Reportable Quantity: No ingredients listed

SARA

302:	No ingredients listed
304 Extremely hazardous substances reportable quantity:	No ingredients listed

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2

311/312:	No ingredients listed
313:	No ingredients listed
Clean Air Act:	This material does not contain any hazardous air pollutants. This material does not contain any Class 1 or Class 2 ozone depletors
Clean Water Act:	None of the chemicals in this product are listed as Hazardous Substances, Priority Pollutants, or Toxic Pollutants under the CWA
Carcinogenetic categories:	
Environmental Protection Agency (EPA):	No ingredients listed
International Agency for Research on Cancer (IARC):	No ingredients listed
National Toxicology Program (NTP):	No ingredients listed
Threshold Limit Value established by ACGIH:	Not established
German Maximum Workplace Concentration (MAK):	No ingredients listed
National Institute for Occupational Safety and Health (NIOSH):	No PEL established
Occupational Safety and Health Administration (OSHA):	No PEL established
California Proposition 65:	
Chemicals known to cause cancer:	No ingredients listed
Reproductive toxicity in females:	No ingredients listed
Reproductive toxicity in males:	No ingredients listed
Developmental toxicity:	No ingredients listed
U.S. State Regulations:	
Massachusetts Right to Know:	No ingredients listed
New Jersey Right to Know:	No ingredients listed
Pennsylvania Right to Know:	No ingredients listed
Water Hazard class:	Not established

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 2

16. OTHER INFORMATION

The information provided is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed merely as guidance for the safe handling, use, processing, storage, transportation, disposal and release of the specific contents. The information relates only to the specific material designated and may not be valid for material used in combination with any other materials or in any process not explained within the text.

Date of Preparation of SDS: 13 February 2019

SAFETY DATA SHEET**ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3****1. IDENTIFICATION**

Product Name: ONCO/Reveal Lung & Colon Cancer Assay Kit,
48 reactions per kit, PN# HDA-LC-2001-48

Box 3 Components:

- Purification Beads, AB-9001-48

Company details

Name: Pillar Biosciences, Inc.
Address: 12 Michigan Drive
Natick, MA 01760 USA
Telephone: +1 508-655-3027

Emergency response

In case of emergencies: CHEMTREC
1-800-424-9300 (U.S. or Canada)
1-703-527-3887 (International)

Recommended use of product

For use by trained professionals
only

2. HAZARD(S) IDENTIFICATION**GHS classification**

The product is a kit consisting of individual ingredients. The classification of individual components can be found in section 3.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Purification Beads, AB-9001-48****GHS classification**

Contains compounds considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazardous components

Sodium azide

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3

Chemical Name	CAS	Concentration
Sodium azide	26628-22-8	< 0.1%

NFPA	
Health:	4
Fire:	1
Reactivity:	3

4. FIRST-AID MEASURES
Route of Exposure:

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.

Skin Contact: Remove contaminated clothing. Wash affected area with soap and water.

Eye contact: Remove contact lenses. Immediately flush opened eye with water. Wash eyes with plenty of water for at least 15 minutes. Consult a physician.

Swallowed: Keep respiratory tract clear. Rinse mouth with water. Do not induce vomiting. Consult a physician.

General: Consult a physician after significant exposure and/or persistent symptoms.

Note to Physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing agents: For small fires use carbon dioxide, dry chemical, water spray, or foam extinguishers. Cool closed containers exposed to fire with water spray. For large fires use extinguishing media suitable for the surrounding environment.

Hazardous Combustion products: Carbon oxides, Sulphur oxides, nitrogen oxides.

Special protective equipment and precautions for fire-fighters: Wear self-contained breathing apparatus if necessary.

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3

6. ACCIDENTAL RELEASE MEASURES**Personal precautions,
protective equipment,
and emergency procedures:**

Use personal protective equipment (PPE). Avoid breathing vapors, mist, or gas. Use in well-ventilated area.

Environmental precautions:

Do not allow product to enter drains, sewage, surface or ground water.

**Methods and materials for
containment and clean up:**

Remove spilled liquids mechanically with inert absorbent material and dispose according to local regulations. Keep in appropriate, closed containers for disposal. Report spills to the environment of any spill materials that reach the RQ.

7. HANDLING AND STORAGE**Precautions for safe handling:**

- Use good laboratory practices. Do not eat, drink, or smoke in operation area.
- Avoid formation of aerosol.
- Immediately remove soiled or contaminated clothing.
- Wash hands before and after use.
- Avoid contact with eyes or skin.
- Use in a well-ventilated area and keep containers tightly sealed.

Conditions for safe storage:

Store according to individual container labelling and keep container tightly sealed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

Control parameters

Components with workplace control parameters:

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3

Components	CAS	Value type	Permissible concentration	Basis
Sodium azide	26628-22-8	TLV	0.29 mg/m ³ Ceiling (as NaN ₃); 0.11 ppm Ceiling (as Hydrazoic acid) (vapor)	ACGIH
Sodium azide	26628-22-8	PEL	Skin-(Vacated) Ceiling: 0.1 ppm, (Vacated) Ceiling: 0.3 mg/m ³	OSHA
Sodium azide	26628-22-8	IDLH	Ceiling: 0.1 ppm, Ceiling: 0.3 mg/m ³	NIOSH

- Appropriate engineering controls:** Ensure adequate ventilation, especially in confined areas
- Personal protective equipment:**
- **Eye protection** Wear safety glasses with side shields
 - **Hand protection** Wear impervious gloves
 - **Skin and body protection** Wear lightweight protective clothing
 - **Hygiene measures** Handle using good industrial hygiene and safety practices

9. PHYSICAL AND CHEMICAL PROPERTIES
Purification Beads, AB-9001-48
Hazardous components

Sodium azide

- Appearance:** Clear liquid with brown precipitate
- Odor:** Odorless
- pH:** 8.0 - 8.4
- Melting point:** Not determined
- Freezing point:** Not determined
- Initial boiling point:** Not determined
- Flash point:** Not applicable
- Evaporation rate:** Not determined
- Flammability:** Not determined
- Explosive limits:** Not determined
- Vapor pressure:** Not determined

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Vapor density:	Not determined
Relative density:	Not determined
Solubility in water:	Completely miscible
Auto-ignition temperature:	Does not self-ignite
Decomposition temperature:	Not determined
Viscosity:	Not determined

10. STABILITY AND REACTIVITY**Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

Reactivity: No further relevant information available**Chemical stability:** The product is stable in accordance with recommended storage conditions**Possibility of hazardous reactions:** This product contains concentrations of azide below the hazardous level which with repeated contact with lead and copper commonly found in plumbing drains may result in the build up of shock sensitive compounds. Sodium azide forms explosive compounds with heavy metals**Conditions to avoid:** Avoid contact with incompatible materials**Incompatible materials:** Metals and metallic compounds, strong acids**Hazardous decomposition products:** No decomposition products posing significant hazards would be expected from this product**11. TOXICOLOGICAL INFORMATION****Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3

Acute oral toxicity:	Oral LD50 Rat 27 mg/kg; Dermal LD50 Rat 50 mg/kg; Dermal LD50 Rabbit 20 mg/kg
Acute inhalation toxicity:	Inhalation is a possible route of exposure. No inhalation toxicity data available
Acute dermal toxicity:	Skin contact is a possible route of exposure. No skin toxicity data available
Aspiration toxicity:	Eye contact is a possible route of exposure. No aspiration toxicity data available
Skin corrosion/irritation-Assessment:	No data available
Serious eye damage/eye irritation-Assessment:	Eye contact is a possible route of exposure. No eye irritation or toxicity data available
Respiratory or skin sensitization-Assessment:	No data available.
Genotoxicity - Assessment:	
IARC:	No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 1272/2008 EC regulation
Reproductive toxicity:	No data available
STOT - single exposure:	No data available
STOT - repeated exposure:	Central nervous system (CNS), cardiovascular system, liver, kidney, heart, spleen

12. ECOLOGICAL INFORMATION**Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

Ecotoxicity:

Toxicity to fish: 96 h LC50 Oncorhynchus mykiss: 0.8 mg/L; 96 h LC50 Lepomis macrochirus: 0.7 mg/L; 96 h LC50 Pimephales promelas: 5.46 mg/L [Flow-through]

Toxicity to algae: No information available

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ONCO/Reveal™ Lung & Colon Cancer Assay – Kit Box 3

Toxicity to fish (chronic): No information available
Toxicity to bacteria: No information available

Persistence and degradability:

- Not determined for product

Bioaccumulative potential:

Octanol/water partition coefficient: Not determined for product

Mobility in soil: Not determined for product

13. DISPOSAL CONSIDERATIONS**Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

Disposal methods:

- Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.
- Sodium azide preservative may form explosive compounds in metal drain lines. See NIOSH Bulletin: Explosive azide Hazard (8/16/76). To avoid the possible build-up of azide compounds, flush wastepipes with water after the disposal of undiluted reagent. Sodium azide disposal must be in accordance with appropriate local regulations.

Contaminated packaging:

Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable

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requirements, contact the authorities for information.

14. TRANSPORT INFORMATION**Purification Beads, AB-9001-48****Hazardous components**

Sodium azide

International Regulation

IATA-DGR:

Not regulated as a dangerous good

IMDG-Code:

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable, packaged goods

National Regulations

49 CFR:

Sodium azide is identified as UN1687 and belongs to hazard class 6.1

15. REGULATORY INFORMATION

Use general safety regulations when handling chemicals.

Inventories:

The hazardous components are listed on the following inventories

AICS:

Sodium azide

DSL:

Sodium azide

ENCS:

Sodium azide

IECSC:

Sodium azide

KECL:

Sodium azide

NZIoC:

Sodium azide

PICCS:

Sodium azide

REACH:

Sodium azide

TSCA:

Sodium azide

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CERCLA Reportable Quantity: Sodium azide, CASRN 26628-22-8 4,
RCRA waste no. P105, RQ=1000 lbs (454
Kg)

SARA

302: No ingredients listed
304 Extremely hazardous
substances reportable quantity: No ingredients listed
311/312: No ingredients listed
313: Sodium azide is subject to reporting
requirements of Section 313, Title III of
SARA. 1.0 % de minimis concentration

Clean Air Act: This material does not contain any
hazardous air pollutants. This material
does not contain any Class 1 or Class 2
ozone depletors

Clean Water Act: None of the chemicals in this product are
listed as Hazardous Substances, Priority
Pollutants, or Toxic Pollutants under the
CWA

Carcinogenetic categories:

Environmental Protection
Agency (EPA): This substance/agent has not undergone
a complete evaluation and
determination under US EPA's IRIS
program for evidence of human
carcinogenic potential

International Agency for
Research on Cancer (IARC): There is inadequate evidence in humans
for the carcinogenicity of hydrazine.
There is sufficient evidence in
experimental animals for the
carcinogenicity of hydrazine

National Toxicology Program (NTP): No ingredients listed
Threshold Limit Value
established by ACGIH: 0.29 mg/m³ Ceiling (as NaN₃); 0.11 ppm
Ceiling (as Hydrazoic acid) (vapor)

German Maximum Workplace 0.2 mg/m³ I (inhalable dust)

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Concentration (MAK):

National Institute for Occupational Safety and Health (NIOSH): Ceiling: 0.1 ppm, Ceiling: 0.3 mg/m³

Occupational Safety and Health Administration (OSHA):

Skin-(Vacated) Ceiling: 0.1 ppm,
(Vacated) Ceiling: 0.3 mg/m³**California Proposition 65:**

Chemicals known to cause cancer: No ingredients listed

Reproductive toxicity in females: No ingredients listed

Reproductive toxicity in males: No ingredients listed

Developmental toxicity: No ingredients listed

U.S. State Regulations:

Massachusetts Right to Know: Sodium azide

New Jersey Right to Know: Sodium azide

Pennsylvania Right to Know: Sodium azide

Water Hazard class: Slightly hazardous for water

16. OTHER INFORMATION

The information provided is correct to the best of our knowledge, information and belief at the date of publication. The information given is designed merely as guidance for the safe handling, use, processing, storage, transportation, disposal and release of the specific contents. The information relates only to the specific material designated and may not be valid for material used in combination with any other materials or in any process not explained within the text.

Date of Preparation of SDS: 14 February 2019