

08/20/2020 Kit Components

Product code	Description	
1536060 9703920	Affi-Gel® Immunoaffinity Hz Kit	
Components:		
1536047	Affi-Gel Hz Hydrazide	
1536054	Affi-Gel® Hz 10x Coupling Buffer	
9701030	EconoPak 10 P-6DG	
1536055	Affi-Gel® Hz Oxidizer	





Printing date 08/20/2020 Reviewed on 07/23/2020

1 Identification

- · Product identifier
- · Trade name: Affi-Gel Hz Hydrazide
- · Catalog or product number: 1536047, 1536050, 9701043
- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories (Canada) Ltd.

1329 Meyerside Drive Mississauga, Ontario

L5T 1C9

Canada phone: 1-800-268-0213 Fax: 1-888-913-9779

- · Information department: sales canada@bio-rad.com
- · Emergency telephone number: 1-800-424-6723 option 2

2 Hazard identification

· Classification of the substance or mixture

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure - Category 3 H336 May cause drowsiness or dizziness.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- · Hazard-determining components of labeling:

propan-2-ol

· Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.



Page 2/8

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

(Contd. of page 1)

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with non-hazardous additions.
- · Listing of dangerous and non-hazardous components:

67-63-0 propan-2-ol

80-100% w/w *

Flammable Liquids - Category 2, H225

Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3,

- * Actual concentration ranges are withheld as a trade secret.
- · Additional information For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information Immediately remove any clothing soiled by the product.
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

Generally the product does not irritate the skin.

Immediately rinse with water.

- · After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing Rinse mouth with water. Seek medical attention and appropriate follow-up.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents Water with full jet.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment (See section 8). Keep unprotected persons away. Wear protective clothing.

Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

(Contd. on page 3)



Page 3/8

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

(Contd. of page 2)

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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

- · Handling
- Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaust at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

EL STEL: 400 ppm

TWA: 200 ppm

EV STEL: 400 ppm

TWA: 200 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

(Contd. on page 4)





Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

(Contd. of page 3)

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- · Breathing equipment: Not necessary if room is well-ventilated. Adequate ventilation required.
- Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

Tightly sealed goggles.

Information on basic physical and	chemical properties
General Information	
Appearance:	
Form:	Liquid
Color:	Colorless
Odor:	Alcohol-like
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	-89.5 °C
Boiling point/Boiling range:	82 °C
Flash point:	<23 °C
Flammability (solid, gaseous)	Not applicable.
Ignition temperature:	425 ℃
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
Explosion limits:	
Lower:	2 Vol %
Upper:	12 Vol %
Vapor pressure at 20 °C:	43 hPa
Density:	Not determined
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water at 20 °C:	1 g/l

(Contd. on page 5)





Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

		(Contd. of page 4)
· Partition coefficient (n-octano	Partition coefficient (n-octanol/water): Not determined.	
· Viscosity: dynamic: kinematic:	Not determined. Not determined.	
· Solvent content: Organic solvents:	97.0 %	
Solids content: Other information	3.0 % No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50	· LD/LC50 values for hazardous components per OSHA criteria:		
67-63-0 p	67-63-0 propan-2-ol		
Oral	LD50	4,570 mg/kg (rat)	
Dermal	LD50	13,400 mg/kg (Rabbit)	
Inhalative	I C50/4 h	30 mg/l (rat)	

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritant effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

67-63-0 propan-2-ol

(Contd. on page 6)

3





Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

(Contd. of page 5)

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information	
· UN-Number · DOT/TDG, ADR, IMDG, IATA	UN1219
· UN proper shipping name· DOT/TDG· ADR· IMDG, IATA	Isopropanol mixture 1219 ISOPROPANOL (ISOPROPYL ALCOHOL) mixture 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), mixture ISOPROPANOL (ISOPROPYL ALCOHOL) mixture
· Transport hazard class(es) · DOT, ADR, IMDG, IATA	O. Filmond I. I. i. i. i.
· Class · Label	3 Flammable liquids 3

(Contd. on page 7)





Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

	(Contd. of page
· Packing group · DOT/TDG, ADR, IMDG, IATA	II
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids 33 F-E,S-D B
 Transport in bulk according to Annex II of MARPOL and the IBC Code 	L 73/78 Not applicable.
· Transport/Additional information:	
· DOT/TDG · Quantity limitations · Remarks:	Void Void ERG 129
· ADR · Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL MIXTURE, 3, II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

- · Section 313 (40CFR372.65):
- 67-63-0 propan-2-ol
- · TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

(Contd. on page 8)





Printing date 08/20/2020 Reviewed on 07/23/2020

Trade name: Affi-Gel Hz Hydrazide

(Contd. of page 7)

· National regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations

· Technical instructions (air):

Class	Share in %
NK	80-100

- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environmental Health and Safety.
- · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

Date of the latest revision of the safety data sheet 08/20/2020 / -

· Abbreviations and acronyms:

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

· * Data compared to the previous version altered.

CA





Printing date 08/20/2020 Reviewed on 07/24/2020

1 Identification

- · Product identifier
- · Trade name: Affi-Gel® Hz 10x Coupling Buffer
- · Catalog or product number: 1536054
- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories (Canada) Ltd.

1329 Meyerside Drive Mississauga, Ontario

L5T 1C9

Canada phone: 1-800-268-0213 Fax: 1-888-913-9779

- · Information department: sales_canada@bio-rad.com
- · Emergency telephone number: 1-800-424-6723 option 2

2 Hazard identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with non-hazardous additions.
- · Listing of dangerous and non-hazardous components:

64-19-7 acetic acid, glacial

Flammable Liquids - Category 3, H226 Skin Corrosion - Category 1A, H314 1-5% w/w *

- * Actual concentration ranges are withheld as a trade secret.
- · Additional information For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information No special measures required.
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact Generally the product does not irritate the skin.
- · After eye contact Rinse opened eye for several minutes under running water.
- · After swallowing Rinse mouth with water. Seek medical attention and appropriate follow-up.

(Contd. on page 2)



Page 2/7

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

(Contd. of page 1)

- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 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

- · Handling
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles: According to product specification
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

· Additional information about design of technical systems: No further data; see item 7.

(Contd. on page 3)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

(Contd. of page 2)

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

64-19-7 acetic acid, glacial

EL STEL: 15 ppm TWA: 10 ppm

EV STEL: 37 mg/m³, 15 ppm TWA: 25 mg/m³, 10 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls

Upper:

- · Personal protective equipment
- · General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

9 Physical and chemical properties

· Information on basic physical and chemical properties		
General Information		
· Appearance:		
Form:	Liquid	
Color:	Colorless	
· Odor:	Odorless	
· Odor threshold:	Not determined.	
· pH-value at 20 °C:	4	
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	undetermined undetermined	
· Flash point:	Not applicable Not determined.	
· Flammability (solid, gaseous)	Not applicable.	
· Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Not determined.	
· Explosion limits: Lower:	Not determined.	

Not determined.

(Contd. on page 4)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

		(Contd. of page 3)
· Vapor pressure at 20 °C:	23 hPa	
· Density at 20 °C:	1.039 g/cm³	
Relative density	Not determined.	
· Vapor density	Not determined.	
Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible	
· Partition coefficient (n-octanol/wa	ter): Not determined.	
· Viscosity:		
dynamic:	Not determined.	
kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	3.1 %	
Water:	79.9 %	
Solids content:	17.0 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values for hazardous components per OSHA criteria:

127-09-3 sodium acetate

Oral LD50 3,530 mg/kg (rat)

64-19-7 acetic acid, glacial

Oral LD50 3,310 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritant effect.
- · Sensitization: No sensitizing effects known.

(Contd. on page 5)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

(Contd. of page 4)

· Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

- · UN-Number
- · DOT/TDG, ADR, ADN, IMDG, IATA Not Regulated
- · UN proper shipping name
- · DOT/TDG, ADN, IMDG, IATA Not Regulated

(Contd. on page 6)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

	(Contd. of page
· ADR	Not Regulated Not Regulated
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA · Class	Not Regulated
· Packing group · DOT/TDG, ADR, IMDG, IATA	Not Regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MA and the IBC Code	ARPOL73/78 Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

· Section 313 (40CFR372.65):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· National regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations

· Technical instructions (air):

Class	Share in %
II.	2.5-<5

- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

CA





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz 10x Coupling Buffer

(Contd. of page 6)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environmental Health and Safety.
- · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- · Date of the latest revision of the safety data sheet 08/20/2020 / -
- · Abbreviations and acronyms:

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

· * Data compared to the previous version altered.

CA





Printing date 08/20/2020 Reviewed on 07/25/2020

1 Identification

- · Product identifier
- · Trade name: EconoPak 10 P-6DG
- · Catalog or product number: 9701030
- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories (Canada) Ltd.

1329 Meyerside Drive Mississauga, Ontario

L5T 1C9

Canada phone: 1-800-268-0213 Fax: 1-888-913-9779

- · Information department: sales canada@bio-rad.com
- · Emergency telephone number: 1-800-424-6723 option 2

2 Hazard identification

· Classification of the substance or mixture

The product is not classified, according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable

3 Composition/Information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with non-hazardous additions.
- · Listing of dangerous and non-hazardous components: Not applicable.
- · Additional information For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information No special measures required.
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact Generally the product does not irritate the skin.
- · After eye contact Rinse opened eye for several minutes under running water.
- · After swallowing Rinse mouth with water. Seek medical attention and appropriate follow-up.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.



Page 2/6

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/25/2020

Trade name: EconoPak 10 P-6DG

(Contd. of page 1)

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

No dangerous substances are released.

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

- · Handling
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and receptacles: According to product specification
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- Personal protective equipment
- · General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed.
- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves

(Contd. on page 3)





Reviewed on 07/25/2020 Printing date 08/20/2020

Trade name: EconoPak 10 P-6DG

(Contd. of page 2)

• Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

9 Physical and chemical properties		
Information on basic physical and chemical properties General Information Appearance:		
Form: Color:	Liquid White	
· Odor:	Odorless	
· Odor threshold:	Not determined.	
· pH-value:	Not applicable.	
 Change in condition Melting point/Melting range: Boiling point/Boiling range: 	undetermined undetermined	
· Flash point:	Not applicable Not determined.	
· Flammability (solid, gaseous)	Not determined.	
· Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Not determined.	
· Explosion limits: Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure at 20 °C:	23 hPa	
· Density:	Not determined	
Relative density Vapor density	Not determined. Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with Water:	Fully miscible	
· Partition coefficient (n-octanol/water): Not determined.		
· Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	
· Solvent content: Water:	75.0 %	
Solids content:	25.0 %	

(Contd. on page 4)



Page 4/6

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/25/2020

Trade name: EconoPak 10 P-6DG

(Contd. of page 3)

· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritant effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Generally not hazardous for water.
- Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 5)





Printing date 08/20/2020 Reviewed on 07/25/2020

Trade name: EconoPak 10 P-6DG

· Other adverse effects No further relevant information available.

(Contd. of page 4)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

Transport information	
UN-Number DOT/TDG, ADR, ADN, IMDG, IATA	Not Regulated
UN proper shipping name DOT/TDG, ADN, IMDG, IATA ADR	Not Regulated Not Regulated Not Regulated
Transport hazard class(es)	
DOT, ADR, ADN, IMDG, IATA Class	Not Regulated
Packing group DOT/TDG, ADR, IMDG, IATA	Not Regulated
Environmental hazards: Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MAI and the IBC Code	RPOL73/78 Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Not Regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

(Contd. on page 6)





Printing date 08/20/2020 Reviewed on 07/25/2020

Trade name: EconoPak 10 P-6DG

(Contd. of page 5)

Section 313 (40CFR372.65):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· National regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations

- · Water hazard class: Generally not hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environmental Health and Safety.
- · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- · Date of the latest revision of the safety data sheet 08/20/2020 / -
- · Abbreviations and acronyms:

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)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.

CA



Page 1/8

phone: 1-800-268-0213 Fax: 1-888-913-9779

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/24/2020

1 Identification

- · Product identifier
- · Trade name: Affi-Gel® Hz Oxidizer
- · Catalog or product number: 1536055, 9701044
- · CAS Number:

7790-28-5

· EC number:

232-197-6

- · Application of the substance / the mixture Laboratory chemicals
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Bio-Rad Laboratories (Canada) Ltd.

1329 Meyerside Drive

Mississauga, Ontario

L5T 1C9 Canada

· Information department: sales canada@bio-rad.com

· Emergency telephone number: 1-800-424-6723 option 2

2 Hazard identification

· Classification of the substance or mixture

Oxidizing Solids - Category 2

Acute Toxicity (Dermal) - Category 2

Skin Irritation - Category 2

H315 Causes skin irritation.

H272 May intensify fire; oxidizer.

H310 Fatal in contact with skin.

Specific Target Organ Toxicity - Single Exposure - Category 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS03 GHS06 GHS07

- · Signal word Danger
- · Hazard-determining components of labeling: sodium periodate
- · Hazard statements

H272 May intensify fire; oxidizer.

H310 Fatal in contact with skin.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep away from clothing and other combustible materials.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

(Contd. on page 2)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 1)

P361 Take off immediately all contaminated clothing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system
- · NFPA ratings (scale 0-4) The substance possesses oxidizing properties.

3 Composition/Information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description:

7790-28-5 sodium periodate

- Identification number(s):
- · EC number: 232-197-6
- · Additional information: For the wording of the listed risk phrases referto section 16.

4 First-aid measures

- · Description of first aid measures
- General information Immediately remove any clothing soiled by the product.
- · After inhalation Supply fresh air; consult doctor in case of complaints.
- · After skin contact

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

- · After eye contact Rinse opened eye for several minutes under running water.
- · After swallowing Rinse mouth with water. Seek medical attention and appropriate follow-up.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

(Contd. on page 3)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 2)

· 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

- · Handling
- · Precautions for safe handling

No special measures required.

Thorough dedusting.

Ensure good ventilation/exhaust at the workplace.

- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- Storage
- · Requirements to be met by storerooms and receptacles: According to product specification
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · **Specific end use(s)** No further relevant information available.

8 Exposure controls/ Personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- · Protection of hands: Protective gloves.
- · Material of gloves Synthetic gloves
- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

(Contd. on page 4)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 3)

Physical and chemical prope	erties en la company de la	
Information on basic physical and	chemical properties	
General Information	• •	
Appearance:		
Form:	Solid	
Color:	White	
Odor: Odor threshold:	Odorless Not determined.	
oH-value:	Not applicable.	
Change in condition		
Melting point/Melting range:	300 ℃	
Boiling point/Boiling range:	undetermined	
Flash point:	Not applicable	
	Not determined.	
Flammability (solid, gaseous)	Product is not flammable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	Not determined.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not applicable.	
Density at 20 °C:	3.865 g/cm³	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Fully miscible	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
dynamic:	Not applicable.	
kinematic:	Not applicable.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability

· Other information

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

No further relevant information available.

(Contd. on page 5)



Page 5/8

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 4)

- · Possibility of hazardous reactions No dangerous reactions known
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values for hazardous components per OSHA criteria:

7790-28-5 sodium periodate

Dermal LD50 58 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritant effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

(Contd. on page 6)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 5)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number	
DOT/TDG, ADR, IMDG, IATA	UN1479
UN proper shipping name	
DOT/TDG	Oxidizing solid, n.o.s.
ADR	1479 OXIDIZING SOLID, N.O.S.
	1479 OXIDIZING SOLID, N.O.S.
IMDG	OXIDIZING SOLID, N.O.S.
IATA	OXIDIZING SOLID, N.O.S. (sodium periodate)
Transport hazard class(es)	
DOT, ADR, IMDG, IATA	
Class	5.1 Oxidizing substances
Label	5.1
Packing group	
DOT/TDG, ADR, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Oxidizing substances
Hazard identification number (Kemler code):	50
Stowage Category	В
Segregation Code	SG38 Stow "separated from" SGG2-ammonium compound
	SG49 Stow "separated from" SGG6-cyanides
	SG60 Stow "separated from" SGG16-peroxides
	SG61 Stow "separated from" SGG15-powdered metals
Transport in bulk according to Annex II of MARPOL	L73/78
and the IBC Code	Not applicable.
Transport/Additional information:	
DOT/TDG	
Quantity limitations	Void
	Void

(Contd. on page 7)





Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 6)

· ADR	
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
· IMDG	
· Limited quantities (LQ)	1 kg
Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1479 OXIDIZING SOLID. N.O.S., 5.1. II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents and Reauthorization Act of 1986 USA)
- Section 302/304 (40CFR355.30 / 40CFR355.40):

Substance not listed.

Section 313 (40CFR372.65):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

ACTIVE

· MAK (German Maximum Workplace Concentration)

Substance is not listed.

· National regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations

- · Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environmental Health and Safety.
- · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- · Date of the latest revision of the safety data sheet 08/20/2020 / -
- · Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 8)



Page 8/8

Safety Data Sheet according to HPR, Schedule 1

Printing date 08/20/2020 Reviewed on 07/24/2020

Trade name: Affi-Gel® Hz Oxidizer

(Contd. of page 7)

DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent Rinaccumulative and Toxic

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

· * Data compared to the previous version altered.