

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Identity PicoPLEX WGA Kit
Alternate Names PicoPLEX WGA Kit (R30050)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Rubicon Genomics, Inc.
 4743 Venture Drive
 Ann Arbor, MI 48108
 Website: www.rubicongenomics.com
 Fax: 734-477-9902

Emergency Telephone No. 734-677-4845

2. Hazard identification of the product

The hazards identified with this kit are those associated with substances found within the following components.

Kit Components:


Cell Extraction Enzyme Amplification Buffer
 Pre-Amp Buffer Amplification Enzyme
 Pre-Amp Enzyme

2.1. Classification of the substance or mixture


Cell Extraction Buffer	No applicable GHS categories
Extraction Enzyme	No applicable GHS categories
Dilution Buffer	No applicable GHS categories
Cell Extraction Enzyme	No applicable GHS categories
Pre-Amp Buffer	Skin Irrit. 2;H315 - Causes skin irritation. Eye Irrit. 2;H319 - Causes serious eye irritation.
Pre-Amp Enzyme	No applicable GHS categories
Amplification Buffer	Skin Irrit. 2;H315 - Causes skin irritation. Eye Irrit. 2;H319 - Causes serious eye irritation.
Amplification Enzyme	No applicable GHS categories
Nuclease-Free Water	No applicable GHS categories

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Pre-Amp Buffer	 <p>Signal Word: Warning H315 Causes skin irritation. H319 Causes serious eye irritation. [Prevention]: P264 Wash thoroughly after handling. P280 Wear protective gloves / eye protection / face protection.</p>
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	<p>[Response]: P302+352 IF ON SKIN: Wash with plenty of soap and water. P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. P321 Specific treatment (see information on this label). P337+313 If eye irritation persists: Get medical advice / attention. P362 Take off contaminated clothing and wash before reuse</p> <p>[Storage]: No GHS storage statements</p> <p>[Disposal]: No GHS disposal statements</p>
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Amplification Buffer	 <p>Signal Word: Warning H315 Causes skin irritation. H319 Causes serious eye irritation.</p> <p>[Prevention]: P264 Wash thoroughly after handling. P280 Wear protective gloves / eye protection / face protection.</p> <p>[Response]: P302+352 IF ON SKIN: Wash with plenty of soap and water. P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. P321 Specific treatment (see information on this label). P337+313 If eye irritation persists: Get medical advice / attention. P362 Take off contaminated clothing and wash before reuse</p> <p>[Storage]: No GHS storage statements</p> <p>[Disposal]: No GHS disposal statements</p>
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Cell Extraction Buffer; Extraction Enzyme Dilution Buffer; Cell Extraction Enzyme; Pre-Amp Enzyme; Amplification Enzyme; Nuclease-Free Water	No applicable GHS categories [Prevention]: No GHS prevention statements [Response]: No GHS response statements [Storage]: No GHS storage statements [Disposal]: No GHS disposal statement
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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Cell Extraction Enzyme

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Glycerol CAS Number: 0000056-81-5	10 - 25	Not Classified	[1][2]

Pre-Amp Buffer

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Glycerol CAS Number: 0000056-81-5	10 - 25	Not Classified	[1][2]
Methane, sulfinylbis- CAS Number: 0000067-68-5	10 - 25	Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]

Tromethamine CAS Number: 0000077-86-1	1.0 - 10	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]
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Pre-Amp Enzyme

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Glycerol CAS Number: 0000056-81-5	50 - 75	Not Classified	[1][2]

Amplification Buffer

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Glycerol CAS Number: 0000056-81-5	10 - 25	Not Classified	[1][2]
Methane, sulfinylbis- CAS Number: 0000067-68-5	10 - 25	Skin Irrit. 2;H315 Eye Irrit. 2;H319	[1]
Tromethamine CAS Number: 0000077-86-1	1.0 - 10	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335	[1]

Amplification Enzyme

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Glycerol CAS Number: 0000056-81-5	50 - 75	Not Classified	[1][2]

Cell Extraction Buffer; Extraction Enzyme Dilution Buffer; Nuclease-Free Water

There are no ingredients in these components which are classified as hazardous.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	No specific symptom data available. See section 2 for further details.
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5. Fire-fighting measures

5.1. Extinguishing media

Carbon Dioxide, dry chemical powder or appropriate foam.

5.2. Special hazards arising from the substance or mixture

Slight Flammability. Material must be heated before ignition will occur.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Absorb spill with inert material, then place in a chemical waste container.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes.

Avoid inhalation.

Avoid Ingestion.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Keep all containers tightly closed.

Store at -20 C.

Incompatible materials: Strong oxidizing agents, strong bases

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

CAS No.	Ingredient	Exposure	
		Source	Value
0000056-81-5	Glycerol	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 3 mg/m3 (respirable) 10 mg/m3 (mist)
		NIOSH	No established RELs
		Supplier	No Established Limit
0000067-68-5	Methane, sulfinylbis-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

0000077-86-1	Tromethamine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000056-81-5	Glycerol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000067-68-5	Methane, sulfinylbis-	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000077-86-1	Tromethamine	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Exposure Controls: No special measures or monitoring required. Facility should be equipped with an eyewash facility and a safety shower.

Personal Protective Equipment: The usual precautionary measures are to be adhered to. Use protective gloves, clothing, and safety goggles.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Reagent vials containing liquid
Odor	Unknown
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	Not Measured
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	Not Measured
Solubility in Water	Not Measured

Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from oxidizing agents, excessive heat, and ignition sources.

10.5. Incompatible materials

Strong oxidizing agents, strong bases

10.6. Hazardous decomposition products

Oxides of phosphorus, oxides of sulfur, phosphine.

11. Toxicological information

Acute toxicity

See section 2 for GHS Classifications.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Glycerol - (56-81-5)	12,600.00, Rat - Category: NA	10,000.00, Rabbit - Category: NA	No data available	No data available	No data available
Methane, sulfinylbis- - (67-68-5)	14,500.00, Rat - Category: NA	5,000.00, Rabbit - Category: 5	No data available	No data available	40,250.00, Rat - Category: NA
Tromethamine - (77-86-1)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Glycerol - (56-81-5)	67,500.00, Oncorhynchus mykiss	10,000.00, Daphnia magna	Not Available
Methane, sulfinylbis- - (67-68-5)	34,000.00, Pimephales promelas	25,000.00, Daphnia magna	12,350.00 (96 hr), Skeletonema costatum
Tromethamine - (77-86-1)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for ground transport

IATA

Non-Hazardous for Air Transport: Non-Hazardous for air transport.

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

Canadian DSL/NDSL: CAS# 56-81-5 is listed on Canada's DSL List.

Canada Ingredient Disclosure List: No Product Ingredients Listed

US EPA Tier II Hazards

Fire: No

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

(No Product Ingredients Listed)

EPCRA 302 Extremely Hazardous :

(No Product Ingredients Listed)

EPCRA 313 Toxic Chemicals:

(No Product Ingredients Listed)

Proposition 65 - Carcinogens (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Developmental Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 - Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Glycerol

Methane, sulfinylbis-

Penn RTK Substances (>1%):

Glycerol

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

DISCLAIMER

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