

# • SAFETY DATA SHEET

Version 9.2  
Revision Date 12/19/2025  
Print Date 12/20/2025

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : Peroxisome Isolation Kit

Product Number : PEROX1

Brand : Sigma

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

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

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## SECTION 2. HAZARDS IDENTIFICATION

### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### Hazards for the product as supplied

- Flammable liquids : Category 4  
Corrosive to metals : Category 1  
Skin irritation : Category 2  
Eye irritation : Category 2A

#### Other hazards

None known.

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H227 Combustible liquid.  
H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P234 Keep only in original packaging.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P390 Absorb spillage to prevent material damage.

#### Storage:

P403 Store in a well-ventilated place.  
P406 Store in a corrosion resistant container with a resistant inner liner.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Refer to component SDS

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**SECTION 4. FIRST AID MEASURES**

Refer to component SDS

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**SECTION 5. FIREFIGHTING MEASURES**

Refer to component SDS

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Refer to component SDS

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**SECTION 7. HANDLING AND STORAGE**

For precautions see section 2.2.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.  
Take precautionary measures against static discharge.

Conditions for safe storage : No metal containers.

Further information on storage conditions : Tightly closed.

Storage class : 10, Combustible liquids

Recommended storage temperature : 36 - 46 °F / 2 - 8 °C

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Refer to component SDS

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Refer to component SDS

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## **SECTION 10. STABILITY AND REACTIVITY**

Refer to component SDS

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Refer to component SDS

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## **SECTION 12. ECOLOGICAL INFORMATION**

Refer to component SDS

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Refer to component SDS

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## **SECTION 14. TRANSPORT INFORMATION**

### **International Regulations**

#### **IATA-DGR**

Not regulated as a dangerous good

#### **IMDG-Code**

Not regulated as a dangerous good

#### **Transport in bulk according to IMO instruments**

Not applicable for product as supplied.

### **National Regulations**

#### **49 CFR Road**

Not regulated as a dangerous good

Poison Inhalation Hazard : No

### **Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

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## **SECTION 15. REGULATORY INFORMATION**

### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
Gradient Separation Reagent	Not Assigned	
OPTIPREP DILUTION BUFFER 20X	Not Assigned	
Peroxisome Extraction Buffer 5X	Not Assigned	
Protease Inhibitor Cocktail	Not Assigned	

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard  
Chronic Health Hazard

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

Warning: Manufactured with Gradient Separation Reagent, OPTIPREP DILUTION BUFFER 20X, Peroxisome Extraction Buffer 5X, Protease Inhibitor Cocktail, a substance which harms public health and environment by destroying ozone in the upper atmosphere.

40 CFR Protection of Environment; Part 82 :  
Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Ozone-Depletion Potential

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Environment; Part 82  
Protection of  
Stratospheric Ozone -  
CAA Section 602 Class I  
SubstancesOzone-  
Depletion Potential

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

This product contains the following priority pollutants related to the U.S. Clean Water Act:

Protease Inhibitor Cocktail	Not Assigned	>= 90 - <= 100 %
OPTIPREP DILUTION BUFFER 20X	Not Assigned	>= 90 - <= 100 %
Peroxisome Extraction Buffer 5X	Not Assigned	>= 90 - <= 100 %
Gradient Separation Reagent	Not Assigned	>= 90 - <= 100 %

## US State Regulations

### Massachusetts Right To Know

Protease Inhibitor Cocktail	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Gradient Separation Reagent	Not Assigned

### Pennsylvania Right To Know

OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned

### Maine Chemicals of High Concern

Protease Inhibitor Cocktail	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Gradient Separation Reagent	Not Assigned

### Vermont Chemicals of High Concern

Gradient Separation Reagent	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Protease Inhibitor Cocktail	Not Assigned

### Washington Chemicals of High Concern

Gradient Separation Reagent	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Protease Inhibitor Cocktail	Not Assigned

### The components of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA inventory.

## TSCA list

The following substance(s) is/are subject to a Significant New Use Rule:

Gradient Separation Reagent	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Protease Inhibitor Cocktail	Not Assigned

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

Gradient Separation Reagent	Not Assigned
OPTIPREP DILUTION BUFFER 20X	Not Assigned
Peroxisome Extraction Buffer 5X	Not Assigned
Protease Inhibitor Cocktail	Not Assigned

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## SECTION 16. OTHER INFORMATION

### Kit Components:

Gradient Separation Reagent	Sigma	O3028
OPTIPREP DILUTION BUFFER 20X	Sigma	O4889
Peroxisome Extraction Buffer 5X	Sigma	P7247
Protease Inhibitor Cocktail	Sigma	P8340

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No

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Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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US / EN


## Kit Components:

<b>Gradient Separation Reagent</b>					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - O3028					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

<b>OPTIPREP DILUTION BUFFER 20X</b>					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - O4889					No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

<b>Peroxisome Extraction Buffer 5X</b>					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - P7247		Warning	May be corrosive to metals. Causes skin irritation. Causes serious eye irritation.	Keep only in original packaging. IF ON SKIN: Wash with plenty of water. Store in a corrosion resistant container with a resistant inner liner. Wash skin thoroughly after handling. IF IN EYES: Rinse cautiously with water for	

				<p>several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ eye protection/ face protection. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage.</p>	
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<b>Protease Inhibitor Cocktail</b>					
Product identifier	Pictogram	Signal word	Hazard statements	Precautionary statements	Supplemental information
Sigma - P8340		Warning	<p>Combustible liquid. Causes skin irritation. Causes serious eye irritation.</p>	<p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF ON SKIN: Wash with plenty of water. Store in a well-ventilated place. Dispose of contents/ container to an approved waste disposal plant. Wash skin thoroughly after handling. IF IN EYES: Rinse</p>	

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				<p>cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ protective clothing/ eye protection/ face protection. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.</p>	
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