

Conforms to 93/112/EC and ISO 11014-1

Responsible Name Company2

? **Section 1. Chemical Product and Company Identification**

Product name PAGEprep Advance Resin, 1ml

Product No. 1859612

Supplier	In USA: Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723	In Europe: Perbio Science Industriezone III Industrielaan 27 9320 Ereembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38	Manufacturer	Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723
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In Case of Emergency CALL CHEMTREC:
800.424.9300
OUTSIDE US:
202.483.7616

Print Date 12/6/2004
Validation Date 12/6/2004
MSDS# 7232

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

 **Section 2. Composition, Information on Ingredients**

Substance/Preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
Ingredient Name #1		25 - 45		Carc. Cat. 2; R45 Xi; R37/38
Ingredient Name #3		0.1 - 1		C; R35
Ingredient Name #2		0.1 - 1		Xi; R36
Ingredient Name #4		0.1 - 1		C; R34 N; R50
Ingredient Name #5		45 - 65		Xi; R36/37/38

 **Section 3. Hazards Identification**

United States Review the most current and approved institutional guideline, protocol, standard operating procedure(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this product.

Emergency Overview Danger!
CAUSES SEVERE RESPIRATORY TRACT, EYE AND SKIN BURNS.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
LUNGS, MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
POSSIBLE CANCER HAZARD
CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

Do not get in eyes, on skin or clothing. (Ingredient 1)- is classified a carcinogen when in powder form. This slurry has no chance of becoming airborne and contacting the lungs. We do not believe this product is classified carcinogenic in its present form). Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.

Target organs Contains material which causes damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eye, lens or cornea.

Routes of Entry Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes Severely corrosive to the eyes.

Skin Severely corrosive to the skin.

Inhalation Severely corrosive to the respiratory system.

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Ingestion May cause burns to mouth, throat and stomach.

Potential chronic health effects

Carcinogenic Effects Data

CARCINOGENIC EFFECTS: Classified None. by NIOSH [Ingredient Name #5]. Classified None. by NIOSH [Ingredient Name #1]. Classified 3 (Not classifiable for human.) by IARC [Ingredient Name #1]. Classified None. by NIOSH [Ingredient Name #2].

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Ingredient Name #5].

TERATOGENIC EFFECTS: Not available.

Medical Conditions Aggravated by Overexposure:

Repeated or prolonged exposure is not known to aggravate medical condition.

Overexposure /Signs/Symptoms

Not available.

Europe

Classification Xi; R36/37/38

Physical/chemical hazards Not applicable.

Human health hazards Irritating to eyes, respiratory system and skin.

Environmental hazards Not applicable.

See Toxicological Information (section 11)

+ Section 4. First Aid Measures

Notice to Reader Get immediate medical attention.

Effects and symptoms

Inhalation Very hazardous in case of inhalation (lung irritant).

Ingestion Slightly hazardous in case of ingestion.

Skin Contact Sensitization of the product: Not available.

Very hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eye Contact Hazardous in case of eye contact (irritant). Slightly hazardous in case of eye contact (corrosive).

Aggravating conditions Repeated or prolonged exposure is not known to aggravate medical condition.

First-Aid Measures

Inhalation In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Notes to Physician Not available.

Protection of first-aiders Not available.

Section 5. Fire Fighting Measures

Flammability of the Product Combustible.

Flash Points The lowest known value is Closed cup: 87°C (188.6°F). Open cup: 94.9°C (202.8°F). (Ingredient Name #5)

Fire Hazards in Presence of Various Substances Not available.

Fire Fighting Media and Instructions Use an extinguishing agent suitable for surrounding fires.

Not available.

Protective Clothing (Fire) Be sure to use an approved/certified respirator or equivalent.

Hazardous thermal (de)composition products These products are carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃...), halogenated compounds, hydrogen chloride. Some metallic oxides.

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Section 6. Accidental Release Measures

Personal precautions Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Environmental Precautions and Clean-up Methods Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. **Neutralize the residue with a dilute solution of acetic acid.**

Small Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary: **Neutralize the residue with a dilute solution of acetic acid.**

◇ Section 7. Handling and Storage

Handling Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Packaging materials

Suitable / Not suitable Use original container.

Czech Republic - Storage code III

Section 8. Exposure Controls/Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the workstation location.

Exposure Limit Values

Ingredient Name

Occupational Exposure Limits

United States

Ingredient Name #3

OSHA (United States, 0/2000).
TWA: 1 mg/m³

Sweden

Ingredient Name #5

AFS (Sweden, 0/1996). Skin
NGV: 50 ppm
KTV: 500 ppm
TGV: 150 ppm

Denmark

Ingredient Name #5

DK-Arbejdstilsynet (Denmark, 0/1996).
GV: 100 ppm

Netherlands

Ingredient Name #5

Arbeidsinspectie (Netherlands, 0/2000).
TGG: 50 ppm

Germany

Ingredient Name #5

BAUA (Germany, 0/1999). Skin
TWA: 160 mg/m³

Ingredient Name #1

BAUA (Germany, 0/1999).
TWA: 0.3 mg/m³

Switzerland

Ingredient Name #5

SUVA (Switzerland, 0/1997). Skin
MAK: 50 ppm 8 hour(s).

Ingredient Name #1

SUVA (Switzerland, 0/1997).
MAK: 0.3 mg/m³

Turkey

Ingredient Name #4

NIOSH REL (United States).
TWA: 18 mg/m³ 8 hour(s).

Personal Protection

Eyes Splash goggles.

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Body Lab coat.**Hands** Gloves.**Respiratory** Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.Protective Clothing
(Pictograms)

Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid.**Color** Brownish-red.**Odor** Ammonia-Like**Molecular Weight** Not applicable.**Taste** Not available.**pH (1% Soln/Water)** 10 [Basic.]**Boiling/Condensation Point** The lowest known value is 188.9°C (372°F) (Ingredient Name #5).**Melting/Freezing Point** May start to solidify at 18.5°C (65.3°F) based on data for: Ingredient Name #5.**Specific Gravity** Weighted average: 1.47 (Water = 1)**Vapor Pressure** The highest known value is 0.05 kPa (0.4 mm Hg) (at 20°C) (Ingredient Name #5).**Vapor Density** The highest known value is 2.71 (Air = 1) (Ingredient Name #5).**Evaporation Rate** 0.026 (Ingredient Name #5) compared to (n-BUTYL ACETATE=1)**Viscosity** Dynamic: The highest known value is 1.1 cP (Ingredient Name #5)**Dispersion Properties** Is not dispersed in cold water, hot water.
See solubility in diethyl ether, acetone.**Solubility** Partially soluble in diethyl ether, acetone.
Insoluble in cold water, hot water.**Flash point** The lowest known value is Closed cup: 87°C (188.6°F). Open cup: 94.9°C (202.8°F). (Ingredient Name #5)**Explosion limits** The greatest known range is Lower: 3.5% Upper: 42% (Ingredient Name #5)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.**Conditions to avoid** Not available.**Materials to avoid** Highly reactive with reducing agents.

Reactive with oxidizing agents, acids, moisture.

Hazardous Decomposition Products These products are halogenated compounds, hydrogen chloride.

Section 11. Toxicological Information

Toxicity to Animals **Ingredient Name #5:**

ORAL (LD50):

Acute: 14500 mg/kg [Rat]. 7920 mg/kg [Mouse].

Ingredient Name #1

LD50: Not available.

LC50: Not available.

Water (H₂O)

LD50: Not available.

LC50: Not available.

Ingredient Name #2:

ORAL (LD50):

Acute: 1940 mg/kg [Mouse]. 1940 mg/kg [Mouse].

Ingredient Name #3

LD50: Not available.

LC50: Not available.

Ingredient Name #4:

ORAL (LD50):

Acute: 350 mg/kg [Rat].

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Chronic Effects on Humans **CARCINOGENIC EFFECTS:** Classified None. by NIOSH [Ingredient Name #5]. Classified None. by NIOSH [Ingredient Name #1]. Classified 3 (Not classifiable for human.) by IARC [Ingredient Name #1]. Classified None. by NIOSH [Ingredient Name #2].

MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. [Ingredient Name #5].

Contains material which causes damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eye, lens or cornea.

Other Toxic Effects on Humans Hazardous in case of eye contact (irritant).
Slightly hazardous in case of ingestion, .

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Sensitive individuals may develop eczema and/or asthma on inhalation of this material. (Ingredient Name #1)

Special Remarks on Other Toxic Effects on Humans To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. (Ingredient Name #5)

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Reproductive toxicity No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation No known significant effects or critical hazards.

Ingestion No known significant effects or critical hazards.

Skin No known significant effects or critical hazards.

Target organs Contains material which causes damage to the following organs: lungs, mucous membranes, upper respiratory tract, skin, eye, lens or cornea.



Section 12. Ecological Information

Mobility Not available.

Persistence/degradability Not available.

Bioaccumulative potential Not available.

Ecotoxicity Not available.

Germany water class VCI WGK: No products were found.

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Ingredient Name #4	Fish (LC50)	96 hour(s)	<1 mg/l
Ingredient Name #5	Bluegill. (EC50)	96 hour(s)	400000 mg/l
	Trout (LC50)	96 hour(s)	35000 mg/l
	Minnows (LC50)	96 hour(s)	34000 mg/l
	daphnia (EC50)	96 hour(s)	27500 mg/l

Other ecological information

Persistence/degradability

Ingredient name

BOD₅

COD

Ingredient name

Aquatic half-life

Photolysis

Bioaccumulative potential

Ingredient name

LogP_{ow}

BCF

Ingredient Name #5

<1

-

low

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.



Section 13. Disposal Considerations

Waste Stream Not available.

Methods of disposal The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

European waste catalogue (EWC) Not available.

Hazardous waste The classification of the product may meet the criteria for a hazardous waste

Denmark – Carcinogenic waste Not available.

Denmark - Waste card number Not available.

Denmark - Waste group Not available.

Sweden - thermoset plastic waste Not available.

Sweden - Waste group Not available.

Austria - Waste catalogue Not available.

Norway - Waste number Not available.

Norway - Hazardous waste The classification of the product may meet the criteria for a hazardous waste

Switzerland - Waste code Not available.

Section 14. Transport Information

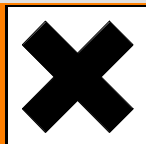
Contact the supplier for all information regarding the proper transportation method for this material.



Section 15. Regulatory Information

Label Requirements (Europe)

R36/37/38- Irritating to eyes, respiratory system and skin.
S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.



Irritant

HCS Classification Corrosive material
Carcinogen
Target organ effects

U.S. Federal Regulations TSCA 8(b) inventory: Ingredient Name #1; Ingredient Name #2; Ingredient Name #4; Ingredient Name #5
TSCA 8(d) H and S data reporting: Ingredient Name #4; Ingredient Name #5

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SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: Ingredient Name #2; Ingredient Name #5
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Ingredient Name #2: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Ingredient Name #5: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
 Clean Water Act (CWA) 307: Ingredient Name #4
 Clean Water Act (CWA) 311: Ingredient Name #4
 Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

State regulations Connecticut carcinogen reporting list.: Ingredient Name #4
 Pennsylvania RTK: Ingredient Name #1: (generic environmental hazard); Ingredient Name #4:
 (environmental hazard, generic environmental hazard)
 Massachusetts RTK: Ingredient Name #4
 New Jersey: Ingredient Name #1; Ingredient Name #4

WHMIS (Canada) Class D-2A: Material causing other toxic effects (VERY TOXIC).
 Class E: Corrosive liquid.

CEPA DSL: Ingredient Name #1; Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

International Regulations

EINECS Not available.

DSCL (EEC) R36/37/38- Irritating to eyes, respiratory system and skin.

International Lists Australia (NICNAS): Ingredient Name #1; Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

Germany water class: Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

Japan (METI): Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

Korea (TCCL): Ingredient Name #1; Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

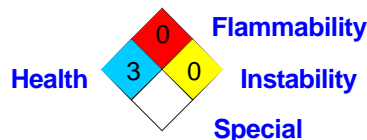
Philippines (RA6969): Ingredient Name #1; Ingredient Name #2; Ingredient Name #4; Ingredient Name #5

State Regulations Connecticut carcinogen reporting list.: Ingredient Name #4
 Pennsylvania RTK: Ingredient Name #1: (generic environmental hazard); Ingredient Name #4: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: Ingredient Name #4
 New Jersey: Ingredient Name #1; Ingredient Name #4

Section 16. Other Information

Hazardous Material Information System (U.S.A.)	Health	3
	Fire hazard	0
	Reactivity	0
	Personal protection	C

National Fire Protection Association (U.S.A.)



References Not available.

History of Document Changes Any information changes since last document version are marked with a triangle symbol.

Full text of R phrases referred to in sections 2 and 3 - Europe
 R45- May cause cancer.
 R34- Causes burns.
 R35- Causes severe burns.
 R36- Irritating to eyes.
 R36/37/38- Irritating to eyes, respiratory system and skin.
 R37/38- Irritating to respiratory system and skin.
 R50- Very toxic to aquatic organisms.

Full text of classifications referred to in sections 2 and 3 - Europe
 Carc. Cat.2 - Carcinogen Category 2
 C - Corrosive
 Xi - Irritant
 N - Dangerous for the environment.

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.