

**Safety Data Sheet**  
**PermaRed/AP and PermaRed/AP-Auto (OSHA)**



**Safety Data Sheet**  
**PermaRed/AP and PermaRed/AP-Auto (OSHA)**

---

**SECTION 1: Identification**

**1.1 GHS Product identifier**

Product name	PermaRed/AP and PermaRed/AP-Auto (OSHA)
Product number	K049, K049-110, K049-Auto, K049-Auto-110
Brand	PermaRed/AP and PermaRed/AP-Auto

**1.2 Other means of identification**

COMPONENT 1 (K049C)  
COMPONENT 2 (K049B)

**1.3 Recommended use of the chemical and restrictions on use**

In Vitro Diagnostics  
Immunohistochemistry  
In Situ Hybridization

**1.4 Supplier's details**

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

**1.5 Emergency phone number**

(925) 484-3350 (Mon - Fri- 9AM-4PM, Pacific Standard Time)

---

**SECTION 2: Hazard identification**

**General hazard statement**

For professional users only

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with: OSHA (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

### 2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

### 2.3 Other hazards which do not result in classification

No other hazards are identified

#### Statement regarding ingredients of unknown toxicity

No other hazards identified

---

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

##### Component 1.

##### 1. Hydrochloric acid

Concentration < 0.5 % (volume)

Other names / synonyms Acidum hydrochloricum; hydrogen chloride; HYDROGEN CHLORIDE (gas)

EC no. 231-595-7

CAS no. 7647-01-0

Index no. 017-002-01-X

- Skin corrosion/irritation (C.4.4), Cat. 1
- Eye damage/irritation (C.4.5), Cat. 1
- Acute toxicity, inhalation (C.4.3), Cat. 3

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H331 Toxic if inhaled

SCLs/M-factors/ATEs Skin Corr. 1B; H314: C ≥ 25 %

Skin Irrit. 2; H315: 10 % ≤ C < 25 %

Eye Irrit. 2; H319: 10 % ≤ C < 25 %

STOT SE 3; H335: C ≥ 10 %

##### Component 2.

##### 1. Sodium chloride

Concentration 0.5 - 1 % (weight)

Other names / synonyms COMMON SALT; DENDRITIS; H.G. BLENDING; HALITE; Natrii chloridum; product-by-process definition polyazodyestuff obtained by coupling 4-[4-(1-amino-8-hydroxy-3,6-disulfo-2-naphthylazo)phenylsulfonylamino]benzenediazonium with reaction mass of 4-carboxybenzenediazonium and diphenylamine-3-sulfo-4,4'-bis(diazonium), and further coupling of the obtained compounds with reaction mass of naphth-2-ol and 3-aminophenol, sodium salts; PUREX; ROCK SALT; SALINE; SALT; SEA SALT; Sodium chloride ; Sodium chloride (NaCl); SODIUMCHLORIDE; STERLING; TABLE SALT; TOP FLAKE; USP SODIUM CHLORIDE; WHITE CRYSTAL

EC no. 425-740-5

CAS no. 7647-14-5

Index no. 611-142-00-3

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

- Eye damage/irritation (C.4.5), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 3

H318 Causes serious eye damage  
H412 Harmful to aquatic life with long lasting effects

### 2. Magnesium chloride Hexahydrate

Concentration 1 - 2 % (weight)

Other names / synonyms Magnesium chloride, hexahydrate  
CAS no. 7791-18-6

### 3. Tromethamine

Concentration 1 - 2 % (weight)

Other names / synonyms 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-; Tris; Trometamol;  
CAS no. 77-86-1

### 4. Surfactant\*

Concentration 0.1 - 0.2 % (weight)

### 5. Phosphate substrate\*

Concentration 0.1 - 0.2 % (weight)

### Trade secret statement (OSHA 1910.1200(i))

\*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

---

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## Safety Data Sheet

### PermaRed/AP and PermaRed/AP-Auto (OSHA)

In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Personal protective equipment for first-aid responders	Wear protective gloves/protective clothing/eye protection/face protection.

#### 4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Consult a physician. Show this safety data sheet to the doctor in attendance.

---

### SECTION 5: Fire-fighting measures

#### 5.1 Suitable extinguishing media

Dry powder

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Specific hazards arising from the chemical

Carbon oxides

-----

Sodium chloride : Hydrogen chloride gas, Sodium oxides

#### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

May intensify fire; oxidiser.

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

#### 6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### Reference to other sections

For disposal see section 13.

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

#### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### CAS: 7647-01-0

Hydrochloric acid

ACGIH: 2 ppm (C) TLV® inhalation; NIOSH: 5 ppm, 7 mg/m<sup>3</sup> REL-C inhalation; OSHA: 5 ppm, 7 mg/m<sup>3</sup> PEL-C inhalation

### 8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Pictograms



#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Thermal hazards

No data available

### Control banding approach

No data available

### Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

---

## SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	Clear
Color	Not Applicable
Odor	No data available.
Odor threshold	No data available.
pH	Not Applicable
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

### Particle characteristics

No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

No data available.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None under normal use conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

### 10.3 Possibility of hazardous reactions

None under normal use conditions.

### 10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Acute and delayed symptoms and effects from inhalation, skin and eye contact and ingestion are listed in Section 4.

The ATE (gas inhalation) of the mixture is: 64285.71 ppmV

Sodium chloride

LD50 Oral - Rat - 3,550 mg/kg

#### Skin corrosion/irritation

Sodium chloride

LD50 Skin - Rabbit - > 10,000 mg/kg

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitization

May cause an allergic skin reaction

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Sodium chloride

LD50 Inhalation - Rat - > 42,000 mg/m<sup>3</sup> - 1 hr

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

### Reproductive toxicity

No data available.

### Summary of evaluation of the CMR properties

No data available.

### STOT-single exposure

May cause respiratory irritation.

### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure

### Aspiration hazard

May be harmful if swallowed and enters airways

---

## SECTION 12: Ecological information

### Toxicity

Sodium chloride

NOEC - Daphnia magna (water flea) - 1,500 mg/l - 7 d

Sodium chloride

LC50 - Lepomis macrochirus (bluegill) - 5,840 mg/l - 96 h

Sodium chloride

LC50 - Daphnia magna (water flea) - 1,661 mg/l - 48 h

### Persistence and degradability

No data available on product

### Bioaccumulative potential

No data available on product

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### Endocrine disrupting properties

No data available

### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

---

## SECTION 13: Disposal considerations

### Disposal methods

#### Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Packaging disposal



# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

Dispose of as unused product.

### Waste treatment

No data available.

### Sewage disposal

Sewage disposal is not recommended.

Offer surplus and non-recyclable solutions to a licensed disposal company.

### Other disposal recommendations

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

Non Household Setting: Products covered by this SDS, in their original form, when disposed as waste, are considered non hazardous waste according to Federal RCRA regulations (40 CFR 261). Disposal should be in accordance with local, state and federal regulations.

---

## SECTION 14: Transport information

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

---

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### Canadian Domestic Substances List (DSL)

Chemical name: Sodium chloride (NaCl)

CAS: 7647-14-5

Chemical name: 1,3-Propanediol, 2-amino-2-(hydroxymethyl)-

CAS: 77-86-1

Chemical name: Poly(oxy-1,2-ethanediyl),  $\alpha$ -[4-(1,1,3,3-tetramethylbutyl)phenyl]- $\omega$ -hydroxy-

CAS: 9002-93-1

Chemical name: Hydrochloric acid

CAS: 7647-01-0

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Chemical name: Hydrochloric acid

CAS number: 7647-01-0

# Safety Data Sheet

## PermaRed/AP and PermaRed/AP-Auto (OSHA)

### New Jersey Right To Know Components

Sodium chloride  
CAS-No. 7647-14-5

Common name: HYDROGEN CHLORIDE  
CAS number: 7647-01-0

### Pennsylvania Right To Know Components

Sodium chloride  
CAS-No. 7647-14-5

Chemical name: Hydrochloric acid  
CAS number: 7647-01-0

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 311/312 Hazards

No SARA Hazards

### SARA 313 Components

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.

## 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for this mixture by the supplier

---

## SECTION 16: Other information

SDS-0014, Rev. C

### 16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic Biosystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic Biosystems has been advised of the possibility of such damages.