

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

077042070

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

077041460 077041478 077041486 077041494 077041502 077041528 077041536 077041544 077042054 077042062

077042088 077042096 077042104 077042112 077042120 077042138 077042146

# Dux Dental Material Safety Data Sheet

Dux Dental  
600 E. Hueneme Road  
Oxnard, CA, USA

Phone: 800.833.8267  
Fax: 805.488.2266  
www.duxdental.com

**Product** Gingibraid, Gingicord, Gingiknit, Unibraid & Shortcut Epinephrine / Alum

**Other Name** Racemic Epinephrine & Aluminum Potassium Sulfate Gingival Retraction Cords

**REF** 13021, 13022, 13023, 13170, 13171, 13172, 13173, 13370, 13371, 13372, 13373, 13375, 13376, 13377, 13378, 13720, 13721 & 13722

**MSDS Number** MS112

## Hazardous Ingredients

Principal Hazardous Components	pel / tlv	CAS Number	Percentage
Racemic Epinephrine HCl (a sympathomimetic)	NA	51-42-3	0.1 - 1.2 mg / inch

## Physical and Chemical Characteristics

<b>Appearance</b>	Small cords of variable constructions impregnated w/ Epinephrine & Alum.
<b>Boiling Point</b>	NA
<b>Melting Point</b>	NA
<b>Vapor Pressure</b>	NA
<b>Evaporation Rate</b>	NA
<b>Odor</b>	None
<b>Vapor Density</b>	NA
<b>Specific Gravity</b>	NA
<b>Water Solubility</b>	Yes (Epi & Alum)

## Fire & Explosion Data

<b>Explosion</b>	Not considered to be an explosion hazard.
<b>Fire</b>	Not considered to be a fire hazard.
<b>Fire Ext. Type</b>	A
<b>Flashpoint</b>	NA
<b>Special Fire Procedures</b>	None
<b>Unusual Hazards</b>	None Known

## Reactivity Data

<b>Stability</b>	Stable
<b>Incompatibilities</b>	Iron salts, metals.
<b>Hzd Decomp Products</b>	Oxides of Sulfur and Carbon.
<b>Hazardous Polymerization</b>	Will not occur.

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**REF** 13021, 13022, 13023, 13170, 13171, 13172, 13173, 13370, 13371, 13372, 13373, 13375, 13376, 13377, 13378, 13720, 13721 & 13722

**MSDS Number** MS112

## Health Hazard Information

**Ingestion** May cause irritation, induce vomiting, give CPR, consult physician.  
**Inhalation** Dust may cause irritation.  
**Skin/Eye Contact** Dust may cause irritation. Flush area w/ water if exposed.  
**Toxicity Data** No harm via exposures of normal use; harmful only due to overwhelming dose or unusual conditions. Epinephrine can cause death in sufficient doses. LD 50 (ip, mice) 4 mg / kg.  
**Acute Hazards** Eye, skin, or respiratory tract irritation.  
**Chronic Hazards** Possible hypersensitization (epinephrine only).  
**Carcinogenicity** NA, no product ingredient listed by NTP, IARC, or OSHA.

## Precautions for Safe Handling and Use

**Cleanup** NA  
**Disposal** Dispose of in accordance with local, state, and federal regulations.  
**Precautions** As part of good industrial, personal hygiene, and safety practice avoid all unnecessary exposure to the substance and ensure prompt removal from skin, eyes, and clothing.

## Occupational Control Measures

**Eye Protection** NA  
**Gloves** NA  
**Dust/Particulate Mask** NA  
**Other** NA

## Additional Information

**DOT Hazard Class** Not Regulated  
**DOT Small Qty Exception** NA  
**DOT Other Exception** NA  
**DOT Exception Permitted** NA  
**Allergenic Ingredients** This product does not contain Latex, Peanut Products, Gluten, or Red Dye #3.

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, the company makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. Accordingly, we will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers.

# Material Safety Data Sheet

## Racemic Epinephrine & Aluminum Potassium Sulfate Gingival Retraction Materials

### 1. Product and company identification

**Product name** : Racemic Epinephrine & Aluminum Potassium Sulfate Gingival Retraction Materials  
**Synonym** : GingiBRAID+, ShortCut, UniBRAID+  
**Material uses** : Dental product: Retraction Material  
**Code** : 13170, 13171, 13172, 13173, 13720, 13721, 13722, 13370, 13371, 13372  
**Manufacturer** : **DUX DENTAL Inc.**  
600 E. Hueneme Road  
Oxnard, CA 93033  
Telephone no.: 805-488-1122 or 800-833-8267  
Fax no.: 800-444-5170  
www.duxdental.com

**In case of emergency** : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

### 2. Hazards identification

**Physical state** : Solid. [Small cords]  
**Color** : Not available.  
**Odor** : Odorless.

#### Emergency overview

**Signal word** : WARNING!

**Hazard statements** : HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS.

**Precautions** : Health effects are based on the uncured material. Avoid exposure - obtain special instructions before use. Do not breathe dust. Do not ingest. Do not get in eyes or on skin or clothing. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

**Inhalation** : Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion** : Toxic if swallowed.

**Skin** : Toxic in contact with skin. Irritating to skin.

**Eyes** : Irritating to eyes.

#### Potential chronic health effects

**Chronic effects** : Contains material that may cause target organ damage, based on animal data.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : Can cause birth defects.

**Developmental effects** : Can cause developmental abnormalities.

**Fertility effects** : No known significant effects or critical hazards.

**Target organs** : Contains material which may cause damage to the following organs: upper respiratory tract, skin, eyes.

## 2. Hazards identification

### Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths
- Skin** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness  
reduced fetal weight  
increase in fetal deaths
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

## 3. Composition/information on ingredients

Name	CAS number	%
(±)-4-[1-hydroxy-2-(methylamino)ethyl]pyrocatechol hydrochloride	329-63-5	5-10
Sulfuric acid, aluminum potassium salt (2:1:1), dodecahydrate	7784-24-9	5-10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.
- Protection of first-aiders** : In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

### Antidote information

Product/ingredient name	Antidote information
No antidote information known	

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

**Flammability of the product** : No specific fire or explosion hazard.

### Extinguishing media

**Suitable** : Use an extinguishing agent suitable for the surrounding fire.

**Not suitable** : None known.

**Special exposure hazards** : In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
halogenated compounds  
metal oxide/oxides

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

**Personal precautions** : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely.

**Environmental precautions** : Low release. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods for cleaning up

**Small spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

**Large spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

## 7. Handling and storage

**Handling** : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Occupational exposure limits

No exposure limit value known.

**Consult local authorities for acceptable exposure limits.**

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : No special measures are required for small quantities under normal and intended conditions of product use.

## 8. Exposure controls/personal protection

<b>Hygiene measures</b>	: No special measures are required for small quantities under normal and intended conditions of product use.
<b>Personal protection</b>	
<b>Respiratory</b>	: No special measures are required for small quantities under normal and intended conditions of product use.
<b>Hands</b>	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
<b>Eyes</b>	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
<b>Skin</b>	: No special measures are required for small quantities under normal and intended conditions of product use.
<b>Environmental exposure controls</b>	: No special measures are required for small quantities under normal and intended conditions of product use.

## 9. Physical and chemical properties

<b>Physical state</b>	: Solid. [Small cords]
<b>Flash point</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Flammable limits</b>	: Not available.
<b>Color</b>	: Not available.
<b>Odor</b>	: Odorless.
<b>pH</b>	: Not available.
<b>Boiling/condensation point</b>	: Not available.
<b>Melting/freezing point</b>	: Not available.
<b>Density</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>Evaporation rate</b>	: Not available.
<b>Viscosity</b>	: Not available.
<b>Solubility</b>	: Soluble in the following materials: cold water and hot water.
<b>LogK<sub>ow</sub></b>	: Not available.

## 10. Stability and reactivity

<b>Chemical stability</b>	: The product is stable.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: metals. iron (Salt.)
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
(±)-4-[1-hydroxy-2-(methylamino)ethyl]pyrocatechol hydrochloride	LD50 Oral	Mouse	90 mg/kg	-

### Chronic toxicity

Not available.

### Irritation/Corrosion

Not available.

### Sensitizer

Not available.

### Carcinogenicity

#### Classification

Not available.

### Mutagenicity

Not available.

### Teratogenicity

Not available.

### Reproductive toxicity

Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

Not available.

### Persistence/degradability

Not available.

**Partition coefficient: n-octanol/water** : Not available.

**Bioconcentration factor** : Not available.

**Mobility** : Not available.

**Toxicity of the products of biodegradation** : Not available.

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

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. 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.

**Disposal should be in accordance with applicable regional, national and local laws and regulations.**

**Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.**



## 14. Transport information

TDG/IMDG/IATA : Not regulated.

## 15. Regulatory information

United States inventory (TSCA 8b) : All components are listed or exempted.

WHMIS (Canada) : Class D-1B: Material causing immediate and serious toxic effects (Toxic).  
 Class D-2A: Material causing other toxic effects (Very toxic).  
 Class D-2B: Material causing other toxic effects (Toxic).

### Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory : At least one component is not listed in DSL but all such components are listed in NDSL.

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

### International regulations

International lists : **Australia inventory (AICS):** Not determined.  
**China inventory (IECSC):** Not determined.  
**Japan inventory:** Not determined.  
**Korea inventory:** Not determined.  
**Malaysia Inventory (EHS Register):** Not determined.  
**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.  
**Philippines inventory (PICCS):** Not determined.  
**Taiwan inventory (CSNN):** Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

## 16. Other information

Label requirements : HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS.

Hazardous Material Information System (U.S.A.) :

Health	*	2
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

## 16. Other information

The customer is responsible for determining the PPE code for this material.

Date of issue : 8/11/2015  
Date of previous issue : No previous validation  
Version : 1

Indicates information that has changed from previously issued version.

### 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.

# SAFETY DATA SHEET

## Racemic Epinephrine & Aluminum Potassium Sulfate Gingival Retraction Materials

### Section 1. Identification

**GHS product identifier** : Racemic Epinephrine & Aluminum Potassium Sulfate Gingival Retraction Materials  
**Other means of identification** : GingiBRAID+, ShortCut, UniBRAID+  
**Product type** : Solid.

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

**Product use** : Dental product: Retraction Material  
**Area of application** : Professional applications.

**Manufacturer** : **DUX DENTAL Inc.**  
600 E. Hueneme Road  
Oxnard, CA 93033  
Telephone no.: 805-488-1122 or 800-833-8267  
Fax no.: 800-444-5170  
www.duxdental.com

**e-mail address of person responsible for this SDS** : Contact customer service at 1-800-KERR-123 for any questions

**Emergency telephone number (with hours of operation)** : CHEMTREC® (24 hours) U.S. : 1-800-424-9300 International: +1-703-527-3887

### Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health effects are based on the uncured material.

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4  
EYE IRRITATION - Category 2A  
SKIN SENSITIZATION - Category 1  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 7.2%

#### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Date of issue/Date of revision** : 08/11/2015 **Date of previous issue** : No previous validation **Version** : 1 1/12

## Section 2. Hazards identification

- Hazard statements** : Harmful if swallowed.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of damaging the unborn child.
- Precautionary statements**
- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Avoid breathing dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
- Response** : IF exposed or concerned: Get medical attention. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : GingiBRAID+, ShortCut, UniBRAID+

### CAS number/other identifiers

- CAS number** : Not applicable.
- Product code** : 13170, 13171, 13172, 13173, 13720, 13721, 13722, 13370, 13371, 13372

Ingredient name	Other names	%	CAS number
(±)-4-[1-hydroxy-2-(methylamino)ethyl]pyrocatechol hydrochloride	Not available.	5-10	329-63-5
Sulfuric acid, aluminum potassium salt (2:1:1), dodecahydrate	Not available.	5-10	7784-24-9
benzyl alcohol	Not available.	0.1-1	100-51-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Inhalation** : No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.

## Section 4. First aid measures

- Skin contact** : No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.

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

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
halogenated compounds  
metal oxide/oxides

**Special protective actions for fire-fighters** : In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely
- For emergency responders** : Low release. See also the information in "For non-emergency personnel".

**Environmental precautions** : Low release. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.
- Large spill** : Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose in a safe manner.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
benzyl alcohol	AIHA WEEL (United States, 10/2011). TWA: 10 ppm 8 hours.

**Appropriate engineering controls** : No special measures are required for small quantities under normal and intended conditions of product use.

**Environmental exposure controls** : No special measures are required for small quantities under normal and intended conditions of product use.

### Individual protection measures

**Hygiene measures** : No special measures are required for small quantities under normal and intended conditions of product use.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : No special measures are required for small quantities under normal and intended conditions of product use.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : No special measures are required for small quantities under normal and intended conditions of product use.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Solid. [Small cords]
<b>Color</b>	: Not available.
<b>Odor</b>	: Odorless.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point</b>	: Not available.
<b>Flash point</b>	: Not available.
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Lower and upper explosive (flammable) limits</b>	: Not available.
<b>Vapor pressure</b>	: Not available.
<b>Vapor density</b>	: Not available.
<b>Relative density</b>	: Not available.
<b>Solubility</b>	: Soluble in the following materials: cold water and hot water.
<b>Solubility in water</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not available.
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Not available.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions to avoid</b>	: No specific data.
<b>Incompatible materials</b>	: Reactive or incompatible with the following materials: metals. iron (Salt.)
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
(±)-4-[1-hydroxy-2-(methylamino)ethyl]pyrocatechol hydrochloride benzyl alcohol	LD50 Oral	Mouse	90 mg/kg	-
	LC50 Inhalation Vapor	Rat	8.8 mg/l	4 hours
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
benzyl alcohol	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
(±)-4-[1-hydroxy-2-(methylamino)ethyl]pyrocatechol hydrochloride	Category 3	Not applicable.	Respiratory tract irritation

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

## Section 11. Toxicological information

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	1219.1 mg/kg
Dermal	3657.2 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
benzyl alcohol	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
benzyl alcohol	0.87	-	low

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 14. Transport information

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR**: octamethylcyclotetrasiloxane; Sodium bisulfite  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
**Clean Water Act (CWA) 311**: Sodium bisulfite

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Immediate (acute) health hazard  
 Delayed (chronic) health hazard

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
(±)-4-[1-hydroxy-2-(methylamino)ethyl] pyrocatechol hydrochloride	5-10	No.	No.	No.	Yes.	Yes.
Sulfuric acid, aluminum potassium salt (2:1:1), dodecahydrate	5-10	No.	No.	No.	Yes.	No.
benzyl alcohol	0.1-1	No.	No.	No.	Yes.	No.

### SARA 313

Not applicable.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### California Prop. 65

## Section 15. Regulatory information

None of the components are listed.

## Section 16. Other information

### Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

<b>Date of issue/Date of revision</b>	: 08/11/2015
<b>Date of previous issue</b>	: No previous validation
<b>Version</b>	: 1
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
<b>References</b>	: HCS (U.S.A.)- Hazard Communication Standard International transport regulations

Indicates information that has changed from previously issued version.

## Section 16. Other information

### [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.