

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION AND GENERAL INFORMATION			
P/N#:	2041-11K		<u>NFPA Code</u>
Nomenclature:	Bitrex Fit Sensitivity Solution #1		H 2
Company Name:	Allegro Industries		F 1
Address:	1360 Shiloh Church Rd		R 0
	Piedmont, SC 29673		O 0
	864-846-8740		
	Chemtrac: 800-424-9300		
2. COMPOSITION			
Product Name:	Denatonium benzoate		
Chemical Name:	Ammonium, Benzyl(diethyl ((2,6-xylyl)carbamoyl)methyl)-, benzoate		
Chemical Family:	N/A		
Synonyms:	N-[2-[2,6-Dimethylphenyl]amino]-2-oxoethyl]-N, N-diethylbenzenemethanaminium benzoate; Benzenemethanaminium, N-(2-((2,6-dimethylphenyl)amino)-2-oxoethyl)-N-N-diethyl-, benzoate; ((2,6-Xylyl)carbamoyl)methyl diethyl benzyl ammonium benzoate		
Ingredient:	Water	Sodium chloride	Denatonium benzoate
CAS Number:	7732-18-5	7647-14-5	3734-33-6
Percent:	95%	4.98%	< .02%
Molecular Weight:	446.59 g/mole		
Chemical Formula:	C28H34N2O3		
Notes:	N/A		
3. HAZARDS IDENTIFICATION			
Routes of Exposure:	Inhalation, ingestion.		
Target Organs:	N/A		
Chronic Exposure:	Repeated or prolonged exposure is not known to aggravate medical condition.		
Acute Exposure:	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion, of inhalation.		
Aggr. of Pre-Ex Cond:	N/A		
Carcinogenic Effects:	Not available.		
Mutagenic Effects:	Not available.		
Teratogenic Effects:	Not available.		
Developmental Toxicity:	Not available.		
4. FIRST AID MEASURES			
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.		
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.		
Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.		
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.		
5. FIRE FIGHTING MEASURES			
Fire Hazards:	As with most organic solids, fire is possible at elevated temperatures.		
Fire Extinguisher:	Small Fire- Use DRY chemical powder.		
	Large Fire- Use water spray, fog, or foam. Do not use water jet.		
Explosion Hazards:	See below.		
Flash Point:	N/A		
Flammable Limits:	N/A		
Volatile (% by volume):	N/A		
Exp. Limits (Vol % in air):	N/A		
Flammability of Product:	May be combustible at high temperature.		
Auto Ignition Temperature:	N/A		
Special Fire Fighting Proc:	N/A		
PPE for Fire Fighters:	N/A		
Products of Combustion:	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).		
Fire Hazards in Presence of Various Substances:	Slightly flammable to flammable in presence of heat.		
Explosion Hazards in Presence of Various Substances:	Risks of explosion of the product in presence of mechanical impact: Not available.		
	Risk of explosion of the product in presence of static discharge: Not available.		
	Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.		
Notes:	None.		
6. ACCIDENTAL RELEASE MEASURES			
Procedure for Spill/Leak:	Small Spill- Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.		
	Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.		
Waste Disposal:	Waste must be disposed of in accordance with Federal, State, and Local Environmental Control Regulations.		
7. HANDLING AND STORAGE			
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area.		
Precautions:	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. If ingested, seek medical advice immediately and show the container or label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.		
Shelf Life:	5 yrs.		
PPE:	Wear suitable protective clothing.		
Notes:	None.		

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8. EXPOSURE CONTROLS	
PPE:	Safety glasses or splash goggles, Lab coat, Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill:	Splash goggles, Full suit, Dust respirator, Boots, Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Inhalation:	N/A
Skin:	N/A
Eye:	N/A
Ingestion:	N/A
Ventilation:	N/A
Engineering Controls:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Work/Hygienic Practices:	Wash hands after handling this product.
Exposure Limits:	N/A
Notes:	None.
9. PHYSICAL AND CHEMICAL PROPERTIES	
Color/Appearance/Odor:	Odorless white liquid with a bitter taste.
Boiling Point	N/A
Melting Point	163°C (325.4°F)-170°C
Critical Temperature:	N/A
Specific Gravity (H ₂ O=1):	N/A
Refractive Index:	N/A
Volatility:	N/A
Evaporative Rate :	N/A
Vapor Density(Air=1):	N/A
Vapor Pressure:	N/A
Odor Threshold:	N/A
Water/Oil Dist. Coeff:	The product is more soluble in oil; log (oil/water) =0.9
Iconicity (in Water):	N/A
Solubility in Water:	Partially soluble in water. Solubility in water: 45 g/l
10. STABILITY AND REACTIVITY	
Stability:	The product is stable.
Instability Temperature:	N/A
Conditions of Instability:	Excess heat, incompatible materials, dust generation.
Incompatibility with Various Substances:	Reactive with oxidizing agents.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	N/A
Special Remarks on Corrosivity:	N/A
Hazardous Polymerization:	Will not occur.
11. TOXICOLOGICAL INFORMATION	
Routes of Entry:	Inhalation, Ingestion.
Toxicity to Animals:	Acute oral toxicity (LD50): 508 mg/kg [Rabbit (Registry of Toxic Effects of Chemical Substances)]. Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit].
Chronic Effects on Humans:	N/A
Other Toxic Effects on Humans:	Hazardous in case of skin contact (irritant). Slightly hazardous in case of ingestion, of inhalation.
Special Remarks on Toxicity to Animals:	LD50/Conc 50% Kill: LD50[Rat] -Route: Oral, Dose: 640 to 841 mg/kg (Information from Johnson Matthey Group)
Special Remarks on Chronic Effects on Humans:	N/A
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Skin: Causes skin irritation. It may be absorbed through the skin, but not in significant or harmful amounts. Eyes: Causes eye irritation. Inhalation: Causes respiratory tract irritation. May cause allergic reaction in susceptible people. Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. May affect behavior/central nervous system (somnolence, tremor, ataxia). May cause allergic reaction to susceptible people.
Notes:	N/A
12. ECOLOGICAL INFORMATION	
Ecotoxicity:	Ecotoxicity in water (LC50): >1000 mg/l 96 hours [Fish/Trout]
BOD5 and COD:	N/A
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation:	N/A

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13. DISPOSAL CONSIDERATIONS

Waste must be disposed of in accordance in Federal, State, and Local Environmental Control Regulations.

14. TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).
Proper Shipping Name: N/A
Hazard Class: N/A
Transport Emergency Card: N/A
Packing Group: N/A
UN Number: N/A
Reportable Quantity: N/A
Notes: N/A

15. REGULATORY INFORMATION

TSCA Registered: TSCA 8(b) inventory: Denatonium benzoate
California Proposition 65 Warning: California Prop 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California Prop 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
EINCS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS) No. 223-095-2.
Canada: Listed on Canadian Domestic Substance List (DSL)
China: Listed on National Inventory.
Japan: Listed on National Inventory. (ENCS)
Korea: Listed on National Inventory. (KECI)
Philippines: Listed on National Inventory. (PICCS)
Australia: Listed on ACIS.
FDA Approved: N/A
ICSC: N/A

16. OTHER INFORMATION

Other Special Considerations: Aversive agent and denaturant.

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MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION AND GENERAL INFORMATION		
P/N#:	2041-12K	<u>NFPA Code</u>
Nomenclature:	Bitrex Fit Test Solution #2	H 2
Company Name:	Allegro Industries	F 1
Address:	1360 Shiloh Church Rd Piedmont, SC 29673 864-846-8740 Chemtrac: 800-424-9300	R 0 O 0
2. COMPOSITION		
Product Name:	Denatonium benzoate	
Chemical Name:	Ammonium, Benzyl-diethyl ((2,6-xylylcarbamoyl)methyl)-, benzoate	
Chemical Family:	N/A	
Synonyms:	N-[2-[2,6-Dimethylphenyl]amino]-2-oxoethyl]-N, N-diethylbenzenemethanaminium benzoate; Benzenemethanaminium, N-(2-((2,6-dimethylphenyl)amino)-2-oxoethyl)-N-N-diethyl-, benzoate; ((2,6-Xylylcarbamoyl)methyl)diethyl benzyl ammonium benzoate	
Ingredient:	Water	Sodium chloride Denatonium benzoate
CAS Number:	7732-18-5	7647-14-5 3734-33-6
Percent:	95%	4.8% < .2%
Molecular Weight:	446.59 g/mole	
Chemical Formula:	C28H34N2O3	
Notes:	N/A	
3. HAZARDS IDENTIFICATION		
Routes of Exposure:	Inhalation, ingestion.	
Target Organs:	N/A	
Chronic Exposure:	Repeated or prolonged exposure is not known to aggravate medical condition.	
Acute Exposure:	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion, of inhalation.	
Aggr. of Pre-Ex Cond:	N/A	
Carcinogenic Effects:	Not available.	
Mutagenic Effects:	Not available.	
Teratogenic Effects:	Not available.	
Developmental Toxicity:	Not available.	
4. FIRST AID MEASURES		
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.	
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.	
Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.	
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.	
5. FIRE FIGHTING MEASURES		
Fire Hazards:	As with most organic solids, fire is possible at elevated temperatures.	
Fire Extinguisher:	Small Fire- Use DRY chemical powder. Large Fire- Use water spray, fog, or foam. Do not use water jet.	
Explosion Hazards:	See below.	
Flash Point:	N/A	
Flammable Limits:	N/A	
Volatile (% by volume):	N/A	
Exp. Limits (Vol % in air):	N/A	
Flammability of Product:	May be combustible at high temperature.	
Auto Ignition Temperature:	N/A	
Special Fire Fighting Proc:	N/A	
PPE for Fire Fighters:	N/A	
Products of Combustion:	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).	
Fire Hazards in Presence of Various Substances:	Slightly flammable to flammable in presence of heat.	
Explosion Hazards in Presence of Various Substances:	Risks of explosion of the product in presence of mechanical impact: Not available. Risk of explosion of the product in presence of static discharge: Not available. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.	
Notes:	None.	
6. ACCIDENTAL RELEASE MEASURES		
Procedure for Spill/Leak:	Small Spill- Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.	
Waste Disposal:	Waste must be disposed of in accordance with Federal, State, and Local Environmental Control Regulations.	
7. HANDLING AND STORAGE		
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area.	
Precautions:	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. If ingested, seek medical advice immediately and show the container or label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.	
Shelf Life:	5 yrs.	
PPE:	Wear suitable protective clothing.	
Notes:	None.	

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8. EXPOSURE CONTROLS	
PPE:	Safety glasses or splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill:	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Inhalation:	N/A
Skin:	N/A
Eye:	N/A
Ingestion:	N/A
Ventilation:	N/A
Engineering Controls:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Work/Hygienic Practices:	Wash hands after handling this product.
Exposure Limits:	N/A
Notes:	None.
9. PHYSICAL AND CHEMICAL PROPERTIES	
Color/Appearance/Odor:	Odorless white liquid with a bitter taste.
Boiling Point	N/A
Melting Point	163°C (325.4°F)-170°C
Critical Temperature:	N/A
Specific Gravity (H ₂ O=1):	N/A
Refractive Index:	N/A
Volatility:	N/A
Evaporative Rate :	N/A
Vapor Density(Air=1):	N/A
Vapor Pressure:	N/A
Odor Threshold:	N/A
Water/Oil Dist. Coeff:	The product is more soluble in oil; log (oil/water) =0.9
Iceicity (in Water):	N/A
Solubility in Water:	Partially soluble in water. Solubility in water: 45 g/l
10. STABILITY AND REACTIVITY	
Stability:	The product is stable.
Instability Temperature:	N/A
Conditions of Instability:	Excess heat, incompatible materials, dust generation.
Incompatibility with Various Substances:	Reactive with oxidizing agents.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	N/A
Special Remarks on Corrosivity:	N/A
Hazardous Polymerization:	Will not occur.
11. TOXICOLOGICAL INFORMATION	
Routes of Entry:	Inhalation. Ingestion.
Toxicity to Animals:	Acute oral toxicity (LD50): 508 mg/kg [Rabbit (Registry of Toxic Effects of Chemical Substances)]. Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit].
Chronic Effects on Humans:	N/A
Other Toxic Effects on Humans:	Hazardous in case of skin contact (irritant). Slightly hazardous in case of ingestion, of inhalation.
Special Remarks on Toxicity to Animals:	LD50/Conc 50% Kill: LD50[Rat] -Route: Oral; Dose: 640 to 841 mg/kg (Information from Johnson Matthey Group)
Special Remarks on Chronic Effects on Humans:	N/A
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Skin: Causes skin irritation. It may be absorbed through the skin, but not in significant or harmful amounts. Eyes: Causes eye irritation. Inhalation: Causes respiratory tract irritation. May cause allergic reaction in susceptible people. Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea. May affect behavior/central nervous system (somnolence, tremor, ataxia). May cause allergic reaction to susceptible people.
Notes:	N/A
12. ECOLOGICAL INFORMATION	
Ecotoxicity:	Ecotoxicity in water (LC50): >1000 mg/l 96 hours [Fish(Trout)]
BOD5 and COD:	N/A
Products of Biodegradation:	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation:	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation:	N/A

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13. DISPOSAL CONSIDERATIONS	
Waste must be disposed of in accordance in Federal, State, and Local Environmental Control Regulations.	
14. TRANSPORT INFORMATION	
DOT Classification:	Not a DOT controlled material (United States).
Proper Shipping Name:	N/A
Hazard Class:	N/A
Transport Emergency Card:	N/A
Packing Group:	N/A
UN Number:	N/A
Reportable Quantity:	N/A
Notes:	N/A
15. REGULATORY INFORMATION	
TSCA Registered:	TSCA 8(b) inventory: Denatonium benzoate
California Proposition 65 Warning:	California Prop 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California Prop 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.
EINCS:	This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS) No. 223-095-2.
Canada:	Listed on Canadian Domestic Substance List (DSL)
China:	Listed on National Inventory.
Japan:	Listed on National Inventory. (ENCS)
Korea:	Listed on National Inventory. (KECI)
Philippines:	Listed on National Inventory. (PICCS)
Australia:	Listed on ACIS.
FDA Approved:	N/A
ICSC:	N/A
16. OTHER INFORMATION	
Other Special Considerations: Aversive agent and denaturant.	

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1. IDENTIFICATION AND GENERAL INFORMATION

P/N#: 2040-12K
Nomenclature: Saccharin Test Solution
Recommended Use of the Chemical & Restrictions on Use:
Uses: Non-nutritive sweetner
Restrictions On Use: No information available
Company Name: Allegro Industries
Address: 1360 Shiloh Church Rd
 Piedmont, SC 29673
 864-846-8740
 Chemtrac: 800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
 Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements: Not classified

Hazards not otherwise classified (HNOC)

Not Applicable

3. COMPOSITION

Components	CAS-No.	Weight%	Trade Secret
Sodium Saccharin, dihydrate 6155-57-3	6155-57-3	100	*

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126)
Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: Ingestion may cause nausea, vomiting, and diarrhea.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Water spray mist or foam.
Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides, Sulfur oxides, sodium Oxides
Specific hazards: May be combustible at high temperatures. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special Protective Actions for Firefighters

Specific Methods: No information available.
Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental precautions: Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. All equipment used when handling the product must be grounded. Keep away from incompatible materials.

Safe Handling Advice: Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage

Conditions: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials: Oxidizing agents.

8. EXPOSURE CONTROLS

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Saccharin, dihydrate 6155-57-3	None	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Saccharin, dihydrate 6155-57-3	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
Sodium Saccharin, dihydrate 6155-57-3	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles. Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Effective dust mask. Wear respirator with dust filter.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid.
Appearance:	Granular. Crystals. Powder. Crystalline powder.
Color:	White.
Flash Point:	Not applicable.
Odor:	Odorless.
Taste:	No information available
Formula:	C7H4NNaO3S•2H2O
Molecular/Formula weight:	241.20
Flashpoint (°C/°F):	No data available
Lower Explosion Limit (%):	No information available
Upper Explosion Limit (%):	No information available
Autoignition Temperature:	No information available
pH:	No information available
Melting point/range(°C/°F):	228 °C/442 °F
Boiling point/range(°C/°F):	No information available
Decomposition Temperature:	No information available
Specific gravity:	No information available
Density (g/cm3):	No information available
Bulk density:	No information available
Vapor pressure @ 20°C (kPa):	No information available
Evaporation rate:	No information available
Vapor density:	No information available
VOC content (g/L):	No information available
Odor threshold (ppm):	No information available
Partition coefficient (n-octanol/water):	No information available
Viscosity:	No information available
Miscibility:	No information available
Solubility:	Soluble in cold water Soluble in hot water

10. STABILITY AND REACTIVITY

Reactivity:	Reactive with oxidizing agents
Chemical stability:	Stable at normal conditions
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur
Conditions to avoid:	Heat. Ignition sources. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Incompatible materials.
Incompatible Materials:	Oxidizing agents.
Hazardous decomposition products:	Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides. Sodium oxides.
<u>Other Information</u>	
Corrosivity:	No information available
Special Remarks on Corrosivity:	No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Ingestion. Inhalation.

Acute Toxicity

Component Information

Sodium Saccharin, dihydrate - 6155-57-3

LD50/oral/rat = 14200 mg/kg (for anhydrous form CAS no. 128-44-9)

LD50/oral/mouse = 17500 mg/kg (for anhydrous form CAS no. 128-44-9)

LD50/dermal/rabbit = No information available

LD50/dermal/rat = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 500 mg/kg, LDL oral, rabbit (for dihydrate form (CAS no. 6155-57-3)

6 g/kg, LD 50 intraperitoneal, mouse (for anhydrous form (CAS no. 128-44-9)

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7100 mg/kg, LD50 intraperitoneal, rat (for anhydrous form (CAS no. 128-44-9))

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = 14200mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 17500mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.
 Eye Contact: May cause eye irritation.
 Inhalation: May cause irritation of respiratory tract.
 Ingestion: Low hazard
 Health injuries are not known or expected under normal use
 Ingestion may cause nausea, vomiting, diarrhea
 Aspiration hazard: No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity: Prolonged or repeated ingestion may affect the urinary system
 Sensitization: No information available
 Mutagenic Effects: No information available
 Carcinogenic effects: Not classifiable as to its carcinogenicity to humans.

Components	ACGIH-Carcinogens	IARC	NTP
Sodium Saccharin, dihydrate	Not listed	Group 3	Not listed

Components	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Sodium Saccharin, dihydrate	Not listed	Not listed	Not listed

IARC (International Agency for Research on Cancer)

Group 3 - Not classifiable as to its carcinogenicity to humans

Reproductive toxicity: No data is available
 Reproductive Effects: No information available
 Developmental Effects: No information available
 Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure: No information available
 STOT - repeated exposure: No information available
 Target Organs: No information available

SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity effects: No data available.
 Persistence and degradability: No information available
 Bioaccumulative potential: No information available
 Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products: Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA -P Series Wastes	RCRA - U Series Wastes
Sodium Saccharin, dihydrate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: Not applicable
 Packing Group: None
 ERG No: No information available
 Marine Pollutant: No data available
 DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available

ADR

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Classification Code: No information available
 Description: No information available
 CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available
 IMDG Page: No information available
 Marine Pollutant: No information available
 MFAG: No information available
 Maximum Quantity: No information available

RID

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available

SAFETY DATA SHEET

Packing Group: No information available
 Classification Code: No information available
 Description: No information available

ICAO

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available

IATA

UN-No: Not Regulated
 Proper Shipping Name: No information available
 Hazard Class: No information available
 Subsidiary Risk: No information available
 Packing Group: No information available
 Description: No information available

15. REGULATORY INFORMATION

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS
Sodium Saccharin, dihydrate	Not listed; This product is exempt from TSCA 8(b) listing since it is a hydrate. However, the anhydrous form (CAS no. 128-44-9) is listed on the TSCA 8(b) Inventory.	Not present	Present	Present (5)-199

Components	CHINA	Australia (AICS)	EINECS-No.
Sodium Saccharin, dihydrate	Not present	Present	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity
Sodium Saccharin, dihydrate	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs
Sodium Saccharin, dihydrate	None	None	None

Components	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Sodium Saccharin, dihydrate	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals with Significant New Use Rules (SNURS)	TSCA 8(d) - Health and Safety Reporting
Sodium Saccharin, dihydrate	Not Applicable	Not Applicable

Canada

WHMIS hazard class: Non-controlled

SAFETY DATA SHEET

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the SDS contains all of the information required by the CPR.

Inventory

Components	Canada (DSL)	Canada (NDSL)
Sodium Saccharin, dihydrate	Not Listed	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Saccharin, dihydrate	Not Listed	Not Listed

EU Classification

R-phrase(s)

not determined

none

S-phrase(s)

none

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Saccharin, dihydrate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

Not dangerous

16. OTHER INFORMATION

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Rev. H

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