

Students,

Please have your Dr. look over these MSDS sheets and then return the **“Student Medical Release Form”** to your instructor before you can continue with lab. GPC cannot be responsible for medical problems due to conditions that may be compromised by contact with chemicals that are used in our labs.

If you are pregnant, trying to get pregnant, or suffer from an immune deficiency problem, you need to have the medical form filled out by your doctor and submitted to your instructor at the time of your next lab. If you have any other health issue that you feel that you would want your Dr. to clear you on, please have them review the MSDS sheets and contact you if they foresee any problems. They can also fill out the medical form and email it back to you.

If you have any questions, please feel free to contact me, Mrs. J. Peiffer at 678-891-3753

Thanks,

J. Peiffer

Biology Lab Supervisor
GPC – Clarkston campus
555 North Indian Creek Drive
Clarkston, Ga. 30021

Student Medical Release Form

I, Dr. _____ (please print name) hereby release _____ to attend

_____ (Name and number of lab – Example: Biology 1611) lab at Georgia Perimeter College _____ (semester and date). By releasing this individual you are stating that chemicals listed in this packet ***are safe for this individual to be in contact with or close proximity to and that this student can participate in lab.***

Doctor's signature

Date

Please return this form to your instructor who should then make a copy and ***forward the original*** on to the ***Lab Supervisor*** of that science division. Note: This is not a waiver to

Science Department
Georgia Perimeter College
555 North Indian Creek Drive
Clarkston, Ga. 30021
678.891.3766



Material Safety Data Sheet

1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate

MSDS# 01759

Section 1 - Chemical Product and Company Identification

MSDS Name: 1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate

Catalog AC128970000, AC128971000, AC128975000, AC346550000, AC346550250, AC346551000

Numbers: AC346551000, AC346555000, AC416190000, AC416191000

Synonyms: Nitroso-R salt.

Company Identification:

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA)

Acros Organics One
Reagent Lane Fair
Lawn, NJ 07410

For information in the US, call:

800-ACROS-01

For information in Europe, call:

+32 14 57 52 11

Emergency Number, Europe:

+32 14 57 52 99

Emergency Number US:

201-796-7100

CHEMTREC Phone Number, US:

800-424-9300

CHEMTREC Phone Number, Europe:

703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 525-05-3
Chemical Name: 1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate
%: >95
EINECS#: 208-369-1

Hazard Symbols: XN



Risk Phrases: 20/21/22 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Harmful if swallowed, inhaled, or absorbed through the skin. Causes eye, skin, and respiratory tract irritation.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. Harmful if absorbed through the skin.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.

Inhalation: Harmful if inhaled. Causes respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower

eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits: Not available
Lower:

Explosion Limits: Not available
Upper:

NFPA Rating: health: 2; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate	none listed	none listed	none listed

OSHA Vacated PELs: 1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if

irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: yellow to orange

Odor: Not available

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: > 300 deg C (> 572.00°F)

Decomposition Temperature: Not available

Solubility in water: Slightly soluble

Specific Gravity/Density:

Molecular Formula: C₁₀H₅NNa₂O₈S₂

Molecular Weight: 377.25

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 525-05-3: QJ6480000

LD50/LC50: RTECS: Not available.

Carcinogenicity: 1-Nitroso-2-naphthol-3,6-disulfonic acid, disodium salt hydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not Regulated.

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 525-05-3: Not available

Canada

CAS# 525-05-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, D2B

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

CAS# 525-05-3 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 525-05-3 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/14/1999

Revision #9 Date 7/20/2009

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 investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.

Bacterial Cultures (in C-2100 and C-2110)

Bacillus cereus

Bacillus megaterium

Bacillus subtilis

Bacillus stearothermophilus

Chromobacterium violaceum

Citrobacter freundii

Clostridium sporogenes

Enterobacter aerogenes

Enterobacter cloacae

Enterococcus faecalis

Enterococcus faecium

Escherichia coli

Micrococcus luteus

Micrococcus roseus

Moraxella catarrhalis

Mycobacterium smegmatis

Proteus mirabilis

Proteus vulgaris

Pseudomonas aeruginosa

Pseudomonas fluorescens

Rhodospirillum rubrum

Serratia marcescens (red variety)

Serratia marcescens (white variety)

Staphylococcus aureus

Staphylococcus epidermidis

Streptococcus agalactiae

Streptococcus lactis

Streptococcus pneumoniae

Streptococcus pyogenes

Streptococcus salivarius

Fungal Cultures (in C-2100 and C-2110)

Aspergillus niger

Penicillium notatum

Rhizopus stolonifer

Sachharomyces cerevisiae

Material Safety Data Sheet		(MSDS)		Date of Revision: 08/01/2011	
Date of Issue: 11/15/2000					
SECTION 1 - MANUFACTURER INFORMATION					
Manufacturer Name:		Decon Laboratories, Inc.			
Trade Name:		CiDecon®		Emergency Telephone	
Cleaner, Disinfectant Deodorizer				U.S.: (800) 424-9300 Canada: (703) 527-3887	
Chemical Name or Synonym:		N/A		Info Telephone: 610-755-0800	
Mfg. Address:		460 Glennie Circle			
City:		King of Prussia		State, Zip: PA 19406	
SECTION II - HAZARDOUS INGREDIENTS					
CAS #	Chemical Name	Percent	OSHA PEL	ACGIH-TLV	Other Units
80-46-6	Para-Tertiary Amylphenol	5.25	N/A	N/A	N/A
0120-32-1	Ortho-Benzyl-Para-Chlorophenol	3.00	N/A	N/A	N/A
90-43-7	Ortho-Phenylphenol	3.00	N/A	N/A	N/A
67-63-0	Isopropanol	< 5	400 ppm	N/A	N/A
1310-73-2	Sodium Hydroxide	< 5	2 mg/m ³	N/A	N/A
Additional Information:		<u>Unidentified ingredients are not considered hazardous under the Federal Hazard Communication Standard (29 CFR 1910.1200)</u>			
SECTION III - PHYSICAL DATA					
Boiling Point (°F):		212°F		Specific Gravity (H2O = 1): 1.035	
Vapor Pressure (mm of Hg):		N/A		pH (Concentrate): 12.5	
Vapor Density (air = 1):		N/A		pH (Diluted): N/A	
Solubility in water:		Complete		Evaporation Rate: 0.9	
Appearance and Odor: Varies between Amber to Purple upon aging (color variance has no relationship to efficacy and cleaning ability); has a Pleasant Lemon odor.			Percent Volatiles: N/A		
SECTION IV - FIRE AND EXPLOSION DATA					
Flash Point:		(TCC) 118°F (PMCC) 122°F		LEL: N/A UEL: N/A	
Hazard Ratings					
HMIS: Health = 2 Flammability = 2 Reactivity = 0 Personal Protection = C					
NFPA: Health = 2 Flammability = 2 Reactivity = 0					

CiDecon® Cleaner Disinfectant Deodorizer

SECTION V - HEALTH HAZARD DATA

Effects of Acute Overexposure

Eyes: Exposure to product in concentrate may cause severe irritation.

Skin Contact: Exposure to product in concentrate may cause severe irritation. Acute Dermal LD50 in white rabbits is greater than 2g/kg of body weight.

Ingestion: Material can be harmful if ingested in quantity. Acute Oral LD50 in rats = 3,526 mg/kg of body weight.

Inhalation: Prolonged exposure to concentrate may cause minor respiratory discomfort. LC50 in rats is greater than gravimetric concentration of 5.6 mg/L.

First Aid

Eyes: Flush with water for fifteen (15) minutes lifting upper and lower lids occasionally. Seek Medical Attention.

Skin contact: Wash thoroughly with soap and water. Apply moisturizing lotion.

Inhalation: Move individual to fresh air.

Ingestion: Promptly drink large quantities of water. Avoid alcohol. Get Medical Attention.

SECTION VI - REACTIVITY DATA

Stability: Stable.

Incompatible Materials: Acids, other detergents.

Carcinogenicity: Non-carcinogenic.

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Small and Large Spills: Dispose in accordance with all State and Federal regulations.

Waste Disposal Method – Plastic: Triple rinse (or equivalent) then offer for recycling or reconditioning.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Maintain adequate ventilation.

Skin Protection: Rubber gloves and normal work clothes.

Eye Protection: Safety goggles.

Fogging: Organic vapor respirator recommended. 3M Brand #NIOSH/MSHA approval TC 23C-859 (or equal).

Other Protective Measures: Do not cut, weld, or puncture container. Do not contaminate water, food, or feed by storage or disposal. Wash hands before eating or smoking. Keep out of reach of children.

SECTION IX - ADDITIONAL INFORMATION

Disclaimer: The manufacturer believes that the information contained on this material safety data sheet is accurate. The suggested procedures are based on experience as of date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.

SECTION X – TRANSPORTATION INFORMATION

DOT Hazard Class: Shipping by ground: ORM-D Consumer Commodity

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.

Students,

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If you are pregnant, trying to get pregnant, or suffer from an immune deficiency problem, you need to have the medical form filled out by your doctor and submitted to your instructor at the time of your next lab. If you have any other health issue that you feel that you would want your Dr. to clear you on, please have them review the MSDS sheets and contact you if they foresee any problems. They can also fill out the medical form and email it back to you.

If you have any questions, please feel free to contact me, Mrs. J. Peiffer at 678-891-3753

Thanks,

J. Peiffer
Biology Lab Supervisor
GPC – Clarkston campus
555 North Indian Creek Drive
Clarkston, Ga. 30021



Material Safety Data Sheet

Creatinine

MSDS# 00586

Section 1 - Chemical Product and Company Identification

MSDS Name: Creatinine
Catalog Numbers: AC228940000, AC228940100, AC228940250, AC228940500
Synonyms: None known.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

Company Identification: (USA) Acros Organics One
Reagent Lane Fair
Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 60-27-5
Chemical Name: Creatinine
%: 99+
EINECS#: 200-466-7

Hazard Symbols: None listed

Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! May cause eye, skin, and respiratory tract irritation. Target Organs: None known.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If

breathing is difficult, give oxygen. Get medical help if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition: Not available
Temperature:

Flash Point: 290 deg C (554.00 deg F)

Explosion Limits: N/A
Lower:

Explosion Limits: N/A
Upper:

NFPA Rating: health: 1; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Creatinine	none listed	none listed	none listed

OSHA Vacated PELs: Creatinine: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Color: white

Odor: odorless

pH: 8 - 9 (5% aq.sol.)

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 255 deg C (decom)

Decomposition Temperature:

Solubility in water: 90 g/L (20°C)

Specific Gravity/Density:

Molecular Formula: C₄H₇N₃O

Molecular Weight: 113.12

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 60-27-5: None listed
LD50/LC50:	RTECS: Not available.
Carcinogenicity:	Creatinine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 60-27-5: 1

Canada

CAS# 60-27-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not available

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

CAS# 60-27-5 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 60-27-5 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 2/19/1998

Revision #5 Date 7/20/2009

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 investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.

Material Safety Data Sheet



Crystal Violet, 1% Aqueous

Revised: 12/08/2010
Replaces: 12/08/2010
Printed: 09/28/2011

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Crystal Violet, 1% aqueous

Product Code(s): 85-6203, 85-6205, 89-2261, 89-2265, 89-2281, 89-2285, 76-6200, 76-6300, 15-4743, C70465, C71062, C10193

Size: Various

Chemical Name: Does not apply, product is a mixture

CAS Number: 548-62-9

Formula: See Section 3

Synonyms: N/A

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: N/A

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Crystal Violet (CAS# 548-62-9) 1%

TLV units: N/A

PEL units: N/A

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 1

Fire: 0

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: N/A

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred

Mechanical(General): Acceptable

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: 100 °C

Vapor Density(Air=1): Approx. 0.7

Percent Volatile by Volume: 99%

Solubility in Water: Soluble

Melting Point: Approximately 0 °C

Vapor Pressure: Approx.17.5 mmHg at 20 °C

Specific Gravity (H₂O=1): 1

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Purple odorless liquid

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: None Known

Incompatibility (Materials to Avoid): Water-reactive Material,

Hazardous Decomposition Products: N/A

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: Crystal Violet (100%): orl-rat LD50 420 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited. Reproductive data cited. Tumorigenic

data cited.

Conditions Aggravated by Overexposure: N/A

Target Organs: N/A

Primary Route(s) of Entry: N/A

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

Crystal Violet, 1% aqueous - No

Chemical Category:

Crystal Violet, 1% aqueous - No

CERCLA Section 103 RQ(Ib.): Crystal Violet, 1% aqueous - No

RCRA Section 261.33: Crystal Violet, 1% aqueous - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act

MATERIAL SAFETY DATA SHEET

ENVIROCID

Surface Disinfectant/Decontaminant Cleaner

1 - IDENTIFICATION

Manufacturer: Metrex Research Corporation
Address: 10270 S. Dransfeldt Road
City, State, Zip: Parker, CO 80134
Telephone: 1-800-841-1428
24-Hour Emergency: Chemtrec 1-800-424-9300
Date Prepared: August 31, 1999

2 - COMPOSITION INFORMATION

Hazardous Ingredients

	<u>CAS #</u>	<u>PEL</u>	<u>TLV</u>	<u>%</u>
Isopropanol	67-63-0	400ppm	N/A	17.20%
Ethylene Glycol				
Monobutyl Ether	111-76-2	50ppm	25ppm	3.0%

Other Ingredients

	<u>CAS #</u>	<u>PEL</u>	<u>TLV</u>	<u>%</u>
Water				
and other inert ingredients		N/A	N/A	79.80%

3 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 191°F
Specific Gravity (H₂O = 1): 0.974 at 25 C
Vapor Pressure (mm Hg): Same as water.
Vapor Density (AIR · 1): Same as water.
Freezing/Melting Point: -10 C
Solubility in Water: 100%
Appearance and Odor: Clear to amber liquid with minty odor.
pH: 11.0 - 12.5

4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 83 F (ASTM D-93) Closed Cup
Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

5 - REACTIVITY DATA

Stability: Stable solution
Conditions to Avoid: Avoid temperatures above 120°F and evaporation of water.
Incompatibility (Material to Avoid): Acids and alkalines will neutralize active ingredient.
Hazardous Decomposition Byproducts: Oxides of carbon.

Hazardous Polymerization: Will not occur.

6 - HEALTH HAZARD DATA

Routes of Entry:
Skin: Moderate irritation.
Eye: Contact with eyes can cause reversible damage.
Inhalation: Low or mild irritation.
Carcinogenicity: NTP: No
IARC Monographs: No **OSHA Regulated Carcinogen:** No

7 - EMERGENCY FIRST AID PROCEDURES

Eyes: Flush with water for 15 minutes. If irritation persists, seek medical attention.
Skin: Wash skin with soap and water.
Inhalation: Remove to fresh air. If irritation persists, seek medical attention.
Ingestion: Do not induce vomiting. Give large amounts of water. Seek medical attention.

8 - PRECAUTIONS FOR SAFE HANDLING & USE

Steps to be taken in case material is released or spilled:
Ventilate area. Wipe up or rinse with tap water.
Waste Disposal Method: Flush thoroughly with water into sewage disposal system in accordance with federal, state, and local regulations. Do not reuse empty container. Wrap container and put in trash.
Precautions to be taken in Handling and Storing:
Store product in original sealed container at room temperature.
Other Precautions: Keep out of reach of children. Do not ingest. Avoid skin and eye contact. Avoid contamination of food.

9 - CONTROL MEASURES

Respiratory Protection: Use in a well-ventilated area.
VENTILATION:
Local Exhaust: Adequate ventilation to maintain recommended exposure limit.
Mechanical (General): Should be sufficient.
Protective Gloves: Not required if used as directed.
Eye Protection: Not required if used as directed.
Work/Hygiene Practices: Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure.

10 - TRANSPORTATION INFORMATION

This product is not regulated by DOT for ground transportation under the aqueous alcohol exemption per 49 CFR 173.150 (E)(1)(2).

Note: This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this MSDS is, to the best of our knowledge, believed to be accurate.

MATERIAL SAFETY DATA SHEET

ENVIROCIDE

Surface Disinfectant/Decontaminant Cleaner

11 - SPECIAL INFORMATION

HMIS (Hazardous Material Identification System) Rating:

H1, F2, R0

[HMIS Hazard Index: 4 – Severe Hazard; 3 – Serious Hazard;
2 – Moderate Hazard; 1 – Slight Hazard; 0 – Minimum
Hazard]

Note: This MSDS was prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this MSDS is, to the best of our knowledge, believed to be accurate.

Material Safety Data Sheet



Ethanol, 95%

Revised: 10/13/2011
Replaces: 09/30/2011
Printed: 10/13/2011

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Ethanol, 95%

Product Code(s): 15-4708A, 15-4708CA, 15-4724A, 89-2301, 892305, 19-1184, 19-1176, 15-4725, 19-1177, 76-6200, 86-1281, 86-1283, 86-1285, 84-1135, 10-1026, 10-1036, 84-0887, 84-0528, C70188, C71535

Size: 1 oz, 75 mL, 350 mL, 500 mL, 4 L, 20 L, various

Chemical Name: Ethanol, 95%

CAS Number: See Section 3

Formula: See Section 3

Synonyms: Alcohol, Ethyl alcohol

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: **WARNING** - Highly flammable. Harmful by inhalation and if swallowed.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ethyl Alcohol (CAS # 64-17-5) 85.5%; Denaturant: Isopropyl Alcohol (CAS # 67-63-0) 5.0%; Denaturant: Methyl Alcohol (CAS #) 4.5%

TLV units: Ethyl alcohol: ACGIH-TLV 1000 ppm (TWA)

PEL units: Ethyl alcohol: OSHA-PEL 1000 ppm (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): 12.8 °C (CC) (Ethanol)

NFPA Rating:

Health: 2

Fire: 3

Reactivity: 0

Extinguisher Media: Use dry chemical, CO2 or appropriate foam.

Flammable Limits in Air % by Volume: (Ethanol) LEL: 3.3% UEL: 19%

Autoignition Temperature: (Ethanol) 363 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

Extremely flammable.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place. Keep away from oxidizing materials and strong acids.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: (Ethanol) 46.07

Boiling Point: (Ethanol) 78.5 °C

Vapor Density(Air=1): (Ethanol) 1.59

Percent Volatile by Volume: 100%

Solubility in Water: Soluble

Melting Point: (Ethanol) •114.1 °C

Vapor Pressure: (Ethanol) 59.3 mmHg at 25°C

Specific Gravity (H2O=1): (Ethanol) 0.789 at 20 °C

Evaporation Rate (BuAc=1): 3.3

Appearance and Odor: Clear, colorless liquid, Alcohol odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Oxidizers,

Hazardous Decomposition Products: COx,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: (Ethanol) orl-rat LD50 7060 mg/kg; ihl-rat LC50 20000 ppm/10H

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited. Reproductive data cited. Tumorigenic data cited.

Conditions Aggravated by Overexposure: Skin disorders, Eye disorders, Respiratory disorders, Liver disorders,

Target Organs: Eyes, Liver, Kidneys, Central Nervous System,

Primary Route(s) of Entry: Inhalation and ingestion.

Section 12 - Ecological Data

EPA Waste Numbers: Ethanol (D001)

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN1170, Ethanol, 3, II

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute Fire

Name List:

Ethanol - No

Chemical Category:

Ethanol - No

CERCLA Section 103 RQ(Ib.): Ethanol - No

RCRA Section 261.33: Ethanol - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act

Material Safety Data Sheet



Gram Iodine

Revised: 05/05/2011
Replaces: 01/19/2011
Printed: 09/28/2011

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Gram Iodine

Product Code(s): 82-1050, 86-5861, 86-5863, 86-5865, 89-2301, 89-2305, 15-4708A, 15-4708CA, 15-4724A, 15-4718, 15-4718A, 15-4715, B6104G, C19086, C70175

Size: Various

Chemical Name: Product is mixture

CAS Number: See Section 3

Formula: See Section 3

Synonyms: N/A

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Harmful by inhalation, in contact with skin and if swallowed.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Potassium Iodide (CAS# 7681-11-0) 0.67%; Iodine (CAS#7553-56-2) 0.33%

TLV units: Potassium Iodide- No information available

Iodine- ACGIH-TLV: Ceiling 0.1 ppm

PEL units: Potassium Iodide - No information available

Iodine- OSHA-PEL: Ceiling 0.1 ppm

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 0

Fire: 0

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place. Keep away from ... (incompatible materials to be indicated by the manufacturer).

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: 100 °C

Vapor Density(Air=1): N/A

Percent Volatile by Volume:

Solubility in Water: Soluble

Melting Point: N/A

Vapor Pressure: 17.535 at 20 °C

Specific Gravity (H₂O=1): 1.0

Evaporation Rate (BuAc=1): 1

Appearance and Odor: Deep amber liquid with slight

characteristic odor of iodine.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Ammonia fumes,

Hazardous Decomposition Products: Free Iodine

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: This mixture has not been thoroughly evaluated.
Potassium Iodide-Oral rat LD50: >2000 mg/kg; Oral mouse LDLo: 1862 mg/kg
Iodine- Oral Rat LD50: 14 g/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: Respiratory disorders, Skin disorders, Eye disorders,

Target Organs: No information available

Primary Route(s) of Entry: N/A

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute Chronic

Name List:

Potassium Iodide - No
Iodine - No

Chemical Category:

Potassium Iodide - No
Iodine - No

CERCLA Section 103 RQ(lb.): Potassium Iodide - No

Iodine - No

RCRA Section 261.33: Potassium Iodide - No

Iodine - No

Section 16 - Additional Information

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Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act

TLV Threshold Limit Value
TSCA Toxic Substances Control Act

Material Safety Data Sheet



KOVAC SOLUTION

Revised: 10/13/2011
Replaces: 06/24/2011
Printed: 10/13/2011

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Kovac Solution

Product Code(s): 87-1391, 87-1393, 87-1389

Size: 100 mL, 500 mL, 30 mL

Chemical Name: N/A

CAS Number: N/A

Formula: N/A

Synonyms: N/A

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Harmful by inhalation and if swallowed. Causes burns. Vapours may cause drowsiness and dizziness. May cause damage to kidneys, liver, & blood.

Potential Health Effects:

Eyes: May cause irritation.

Skin: May cause irritation to skin.

Ingestion: May cause gastrointestinal discomfort.

Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Hydrochloric acid (CAS# 7647-01-0) 24%; p-Dimethylaminobenzaldehyde (CAS# 100-10-7) 5%; tert-Butyl Alcohol (CAS# 75-65-0) 71%

TLV units: Hydrochloric acid: ACGIH-TLV 2 ppm; Ceiling
tert-Butyl Alcohol: ACGIH-TLV 100 ppm (TWA)

PEL units: Hydrochloric acid: OSHA-PEL 5 ppm; Ceiling
tert-Butyl Alcohol: OSHA-PEL 100 ppm (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, wash immediately with plenty of water.

Ingestion - If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. If swallowed, rinse mouth with water (only if the person is conscious).

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): 10.9°C (cc) (tert-Butyl Alcohol)

NFPA Rating:

Health: 3

Fire: 3

Reactivity: 2

Extinguisher Media: Use dry chemical, CO₂ or appropriate foam.

Flammable Limits in Air % by Volume: LEL 2.4% (tert-Butyl Alcohol) UEL 8% (tert-Butyl Alcohol)

Autoignition Temperature: 479.9°C (tert-Butyl Alcohol)

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Highly flammable.

Contact with strong oxidizers may cause fire or explosion.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Keep container tightly closed in a cool, well-ventilated place.

Bond and ground containers when transferring liquid.

Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.

After contact with skin, wash immediately with plenty of water.

Harmful if swallowed.

Keep away from sources of ignition - No smoking.

Keep away from oxidizing materials and strong acids. This material should be kept in an area suitable for the storage of flammable liquids. Store away from oxidizing agents, sparks and flame.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Preferred

Mechanical(General): Acceptable

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: 95%

Solubility in Water: Slightly Soluble

Melting Point: N/A

Vapor Pressure: N/A

Specific Gravity (H₂O=1): N/A

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Clear, colorless liquid, Alcohol odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Oxidizers, Alkalis, Metals, Metal Oxides, Amines, Carbonates,

Hazardous Decomposition Products: HCl,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: p-Dimethylaminobenzaldehyde: ipr-rat LD50 620 mg/kg; orl-rat LDlo 500 mg/kg.

Hydrochloric acid: ihl-rat LC50 3124 ppm/1H; orl-rbt LD50 900 mg/kg.

tert-Butyl Alcohol: ivn-mus LD50 1500 mg/kg; orl-rat LD50 2743 mg/kg.

Effects of Overexposure:

Acute: See Section 2

Chronic: Mutation data cited. Reproductive data cited. Not listed as a carcinogen by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: N/A

Target Organs: N/A

Primary Route(s) of Entry: Inhalation.

Section 12 - Ecological Data

EPA Waste Numbers: Hydrochloric acid D002, tert-Butyl Alcohol D001

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: UN2924, Description: Flammable Liquids, corrosive, N.O.S. (tert-butyl alcohol, Hydrochloric Acid), 3, II.

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

p-Dimethylamino-benzaldehyde - No

Hydrochloric acid - Yes

tert-Butyl Alcohol - Yes

Chemical Category:

p-Dimethylamino-benzaldehyde - No

Hydrochloric acid - No

tert-Butyl Alcohol - No

CERCLA Section 103 RQ(lb.): p-Dimethylamino-benzaldehyde - No

Hydrochloric acid - 5000

tert-Butyl Alcohol - No

RCRA Section 261.33: p-Dimethylamino-benzaldehyde - No

Hydrochloric acid - No

tert-Butyl Alcohol - No

Section 16 - Additional Information

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Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act

MSDS# 60321

Section 1 - Chemical Product and Company Identification

MSDS Name: Malachite Green oxalate

Catalog Numbers: AC229780000, AC229780250, AC229781000, AC229785000, AC413490000, 41349-0250, M290-25

Synonyms: C.I. Basic Green oxalate; C.I. Basic Green 4; C.I. 42000; Aniline Green; China Green; Victoria Green; New Victoria Green; Diamond Green.

Company Identification: Fisher Scientific One
Reagent Lane Fair
Lawn, NJ 07410

For information in the US, call: 201-796-7100

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 2437-29-8
Chemical Name: Malachite Green oxalate
%: 100
EINECS#: 219-441-7

Hazard Symbols:

XN N



Risk Phrases:

22 41 50/53 63

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Harmful if swallowed. Causes severe eye irritation and possible injury. Possible risk of harm to the unborn child.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Target Organs: Eyes.

Potential Health Effects

Eye: Causes severe eye irritation. Risk of serious damage to eyes.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Oxalates are toxic because of their chelating properties. They are especially toxic when ingested. Mean lethal dose for oxalates in adults is estimated at 10-30 grams (143-429 mg/kg).

Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.

Chronic: Possible risk of harm to the unborn child.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical

Inhalation: aid. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Not available
Lower:

Explosion Limits: Not available
Upper:

NFPA Rating: health: 2; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Do not get on skin or in eyes. Do not ingest or inhale.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Malachite Green oxalate	none listed	none listed	none listed

OSHA Vacated PELs: Malachite Green oxalate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: green

Odor: odorless

pH: 2 in 2% solution.

Vapor Pressure: Negligible.

Vapor Density: Not applicable.

Evaporation Rate: Negligible.

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 164 deg C (decom)

Decomposition Temperature: Not available

Solubility in water: 60 g/L (20°C)

Specific Gravity/Density: Not available.

Molecular Formula: Not applicable.

Molecular Weight: 927.03

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures. Conditions to Avoid:
Incompatibilities with Other Materials	Incompatible materials, dust generation, excess heat.
Hazardous Decomposition Products	Strong oxidizing agents, strong reducing agents, strong bases.
Hazardous Polymerization	Nitrogen oxides, carbon monoxide, carbon dioxide.
	Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 2437-29-8: BQ1190000

RTECS:

LD50/LC50: **CAS# 2437-29-8:** Draize test, rabbit, eye: 76 mg Severe;
Oral, rat: LD50 = 275 mg/kg;

Carcinogenicity: Malachite Green oxalate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.

Hazard Class: 9

UN Number: UN3077

Packing Group: III

Canada TDG

Shipping Name: TOXIC SOLID, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: UN2811

Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN N

Risk Phrases:

R 22 Harmful if swallowed.

R 41 Risk of serious damage to eyes.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child.

Safety Phrases:

S 2 Keep out of reach of children.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37 Wear suitable protective clothing and gloves.

S 39 Wear eye/face protection.

S 46 If swallowed, seek medical advice immediately and show this container or label.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 2437-29-8: 3

Canada

CAS# 2437-29-8 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, D2A, D2B

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

CAS# 2437-29-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 2437-29-8 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #11 Date 7/20/2009

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 investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.



Student Medical Release Form

I, Dr. _____ hereby release _____
(Print name) (Student name)

to attend _____ Lab at Georgia Perimeter College for _____
(Lab name & number—e.g. Biology 1402) (Semester & year-e.g. Fall 09).

By signing this release form, you are stating that the chemicals listed in this packet are safe for this individual to be in contact with or be in close proximity of it.

Please return this form to your instructor, who will then make a copy of it and return **the original** to the **Lab Supervisor**.

Science Department
Georgia Perimeter College
555 North Indian Creek Drive,
Clarkston, GA-30021
678-891-3766



Material Safety Data Sheet
Methyl red, sodium salt, indicator

MSDS# 97003

Section 1 - Chemical Product and Company Identification

MSDS Name: Methyl red, sodium salt, indicator
Catalog Numbers: AC151410000, AC151410250, AC151411000, AC151415000
Synonyms: 2-[4-(Dimethylamino)phenylazo]benzoic acid; Benzoate, 2-[[4-(dimethylamino)phenyl]azo]-, sodium; Benzoic acid, 2-[[4-(dimethylamino)phenyl]azo]-, sodium salt; Sodium 2-(p-(dimethylamino)phenylazo) benzoate; Sodium methyl red

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium
Acros Organics One
Reagent Lane Fair
Lawn, NJ 07410
Company Identification: (USA)
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 845-10-3
Chemical Name: Sodium 2-(p-(dimethylamino)phenylazo)benzoate
%: 100
EINECS#: 212-682-9

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution! This is expected to be a low hazard for usual industrial handling. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Target Organs: No data found.

Potential Health Effects

Eye: This product contains an anionic dye. Similar dyes have not caused injury to the cornea or conjunctiva in documented exposure cases with human or rabbit eyes.
Skin: May cause skin irritation.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.
Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

Autoignition Temperature: > 450 deg C (> 842.00 deg F)

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 0; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium 2-(p-(dimethylamino)phenylazo)benzoate	none listed	none listed	none listed

OSHA Vacated PELs: Sodium 2-(p-(dimethylamino)phenylazo)benzoate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: orange

Odor: Not available

pH: Not available

Vapor Pressure: Negligible.

Vapor Density: Not available

Evaporation Rate: Negligible.

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: Not available

Decomposition Temperature: Not available

Solubility in water: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: C₁₅H₁₄N₃O₂Na

Molecular Weight: 291.27

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, dust generation.

Incompatibilities with Other Materials: Not available

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen oxides (NO_x) and ammonia (NH₃), nitrogen gas.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 845-10-3: None listed

LD50/LC50: RTECS: Not available.

Carcinogenicity: Sodium 2-(p-(dimethylamino)phenylazo)benzoate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Please contact Fisher Scientific for shipping information

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:Not available

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 845-10-3: Not available

Canada

CAS# 845-10-3 is listed on Canada's DSL List

Canadian WHMIS Classifications: Not controlled.

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

CAS# 845-10-3 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

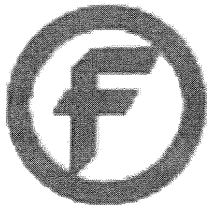
CAS# 845-10-3 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #7 Date 7/20/2009

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 investigations to determine the suitability of the information for their particular purposes. In no event shall the company 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 howsoever arising, even if the company has been advised of the possibility of such damages.



Fisher Scientific

Material Safety Data Sheet

Creation Date 02-Nov-2009

Revision Date 02-Nov-2009

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Potassium Hydroxide
Cat No.	P246-3; P250-1; P250-3; P250-10; P250-50; P250-500; P251-3; P251-50; P251-500; P258-12; P258-50; P258-50LC; P258-212
Synonyms	Potassium hydrate; Lye; Caustic potash
Recommended Use	Laboratory chemicals
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!		
Emergency Overview		
Causes severe burns by all exposure routes. Harmful if swallowed. Water reactive.		
Appearance Light yellow	Physical State Solid	Odor odorless

Target Organs Eyes, Respiratory system, Skin, Gastrointestinal tract

(GI) Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Causes severe burns. May cause blindness or permanent eye damage.
Skin	Causes severe burns. May be harmful in contact with skin. Repeated exposure may cause skin dryness or cracking.
Inhalation	Causes severe burns. May be harmful if inhaled.
Ingestion	Harmful if swallowed. Causes severe burns.

Chronic Effects Tumorigenic effects have been reported in experimental animals.. Mutagenic effects have occurred in experimental animals..

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Preexisting eye disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz	Component	CAS-No	Wei ht%
	Potassium hydroxide	1310-58-3	100.0

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point Method	Not applicable No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..
Unsuitable Extinguishing Media	Carbon dioxide (CO2).
Hazardous Combustion Products	No information available.
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	No information available.
Specific Hazards Arising from the Chemical	
Water reactive. Contact with metals may evolve flammable hydrogen gas. Thermal decomposition can lead to release of irritating gases and vapors.	
Protective Equipment and Precautions for Firefighters	
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.	

NFPA Health 3 Flammability 0 Instability 1 Physical hazards N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Corrosives area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide	Ceiling: 2 mg/m ³	(Vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Potassium hydroxide	Ceiling: 2 mg/m ³		CEV: 2 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Light yellow
Odor	odorless
Odor Threshold	No information available.
pH	13.5 (0.1M)
Vapor Pressure	No information available.
Vapor Density	No information available.
Viscosity	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point/Range	1320°C / 2408°F
Melting Point/Range	360°C / 680°F
Decomposition temperature 0C	No information available.
Flash Point	Not applicable
Evaporation Rate	No information available.
Specific Gravity	2.04
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	56.1
Molecular Formula	KOH

10. STABILITY AND REACTIVITY

Stability	Moisture sensitive. Air sensitive. Absorbs moisture from air and becomes liquid.
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water.
Incompatible Materials	Water, Metals, Acids
Hazardous Decomposition Products	Oxides of potassium
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium hydroxide	214 mg/kg (Rat)	Not listed	Not listed

Irritation	Causes severe burns by all exposure routes
Toxicologically Synergistic Products	No information available.
Chronic Toxicity	
Carcinogenicity	There are no known carcinogenic chemicals in this product
Sensitization	No information available.
Mutagenic Effects	Mutagenic effects have occurred in experimental animals.

Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenicity	No information available.
Other Adverse Effects	Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.
Endocrine Disruptor Information	No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility

Component	log Pow
Potassium hydroxide	0.65
	0.83

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT

UN-No	UN1813
Proper Shipping Name	Potassium hydroxide, solid
Hazard Class	8
Packing Group	II

TOG

UN-No	UN1813
Proper Shipping Name	POTASSIUM HYDROXIDE, SOLID
Hazard Class	8
Packing Group	II

IATA

UN-No	UN1813
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14. TRANSPORT INFORMATION

Proper Shipping Name POTASSIUM HYDROXIDE, SOLID
 Hazard Class 8
 Packing Group II

IMDG/IMO

UN-No UN1813
 Proper Shipping Name POTASSIUM HYDROXIDE, SOLID
 Hazard Class 8
 Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Potassium hydroxide	X	X	-	215-181-3	-		X	X	X	X	KE-29139 X

Legend:

- X- listed
- E- Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F- Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P- Indicates a commenced PMN substance
- R- Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S- Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T- Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU -Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(8)).
- Y1 -Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard No
 Chronic Health Hazard No
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Clean Water Act

Component	CWA- Hazardous Substances	CWA - Reportable Quantities	CWA- Toxic Pollutants	CWA- Priority Pollutants
Potassium hydroxide	X	10001b	-	-

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Potassium hydroxide	10001b	

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium hydroxide	X	X	X		X

U.S. Department of Transportation
Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

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

WHMIS Hazard Class
E Corrosive material
01B Toxic materials



Material Safety Data Sheet



Safranin Counterstain for Gram Method

Revised: 06/24/2011
Replaces: 05/05/2011
Printed: 09/28/2011

Carolina Biological Supply Company

2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Safranin Counterstain for Gram Method

Product Code(s): 88-6983, 88-6985, 89-2285, 89-2261, 89-2301, 89-2305, 82-1050, 15-4708, 15-4708A, 15-4708CA, 15-4718, 15-4718A, 15-4724A, C19085, C70649

Size: Various

Chemical Name: N/A

CAS Number: See Section 3

Formula: See Section 3

Synonyms: N/A

Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Irritating to eyes, respiratory system and skin.

Potential Health Effects:

Eyes: May cause irritation.

Skin: Irritating to skin.

Ingestion: Harmful if swallowed.

Inhalation: Irritating to respiratory system.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Safranin (CAS# 477-73-6) 0.25%; Ethyl alcohol (CAS# 64-17-5) 9.5%; Methyl isobutyl ketone (Denaturant) (CAS# 108-10-1); Hexane (Denaturant) (CAS# 110-54-3) 0.12%

TLV units: (Safranin) N/A

(Ethyl alcohol) ACGIH-TLV 1,000 ppm (TWA)

(Methyl isobutyl ketone) ACGIH-TLV 50 ppm (TWA), (STEL) 75 ppm

(Hexane) ACGIH-TLV 50 ppm (TWA)

PEL units: (Safranin) N/A

(Ethyl Alcohol) OSHA-PEL 1,000 ppm (TWA)

(Methyl isobutyl ketone) OSHA-PEL 100 ppm (TWA)

(Hexane) OSHA-PEL 500 ppm (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:

Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion - If swallowed, seek medical advice immediately and show this container or label.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): Ethanol: 13.1 C (cc)

NFPA Rating:

Health: 0

Fire: 2

Reactivity: 0

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: Ethyl alcohol: LEL: 3.3% Ethyl Alcohol: UEL: 19%

Autoignition Temperature: Ethyl Alcohol: 423 °C

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Risk of explosion by shock, friction, fire or other sources of ignition.

Fire or excessive heat may produce hazardous decomposition products.

Vapours may travel back to ignition source. Closed Containers exposed to heat may explode.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Bond and ground containers when transferring liquid.

This material should be kept in an area suitable for the storage of flammable liquids. Store away from oxidizing agents, sparks and flame.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: 100%

Solubility in Water: Soluble

Melting Point: N/A

Vapor Pressure: N/A

Specific Gravity (H2O=1): < 1

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Red liquid with characteristic odor.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Keep away from sources of ignition - No smoking.

Heat and sources of ignition.

Incompatibility (Materials to Avoid): Oxidizers, Water-reactive Material,
Hazardous Decomposition Products: CO_x,
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: (Ethyl alcohol) orl-rat LD50 7060 mg/kg
(Methyl isobutyl ketone) orl-rat LD50 2080 mg/kg
(Hexane) orl-rat LD50 25 gm/kg
(Safranin) None

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA. Mutation data cited. Reproductive data cited.

Conditions Aggravated by Overexposure: Respiratory disorders, Skin disorders, Eye disorders,

Target Organs: Respiratory system, Skin, Eyes,

Primary Route(s) of Entry: Inhalation.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

Safranin - No

Ethyl alcohol - No

Methyl isobutyl ketone - No

Hexane - No

Chemical Category:

Ethyl alcohol - No

Safranin - No

Methyl isobutyl ketone - No

Hexane - No

CERCLA Section 103 RQ(lb.): Safranin - No

Ethyl alcohol - No

Methyl isobutyl ketone - 5000 lbs

Hexane - No

RCRA Section 261.33: Safranin - No

Ethyl alcohol - No

Methyl isobutyl ketone - No

Hexane - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act

MATERIAL SAFETY DATA SHEET

(MSDS)

SECTION I: PRODUCT IDENTIFICATION

Issue Date: January 05, 2009.
 Identity: POVIDONE IODINE SURGICAL SCRUB 7.5%
 Manufactured by: Sion Biext Medical Ltd
 Kibbutz Misgav Am, Mobile Post Upper Galilee, Israel 12155
 Emergency Telephone Number: 01800-7138-647
 Information Telephone Number: (01777) 3191615
 Distributed by: Degasa, s.a. de c.v.
 Calle 13 este No 580
 Civac, J1utepec Morelos C.P. 62500

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SECTION II: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components

Specific Chemical Identity:

Common name	Cas#	OSHA PEL	ACGIH	TLV	Other limits % Recommended
Polivinilpirrolidone-iodine Polymer (PVP Iodine)	25655-4-1-8	N/A	N/A	NIA	N/A

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: About 105°C/1atm
 Vapor Pressure (mmHg): Negligible
 Vapor Density (Air=1): 1.6
 Solubility in water: Completely soluble on water
 Appearance and odor: Reddish brown with characteristic iodine odor, free of particulate matter in suspension, or foam matter
 Specific Gravity (water=1): 1.033 (20°C)
 Melting Point: NIA
 Evaporation Rate (Butyl Acetate=1): Negligible

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Closed cup): N/A
 Flammable Limits: LEL: N/A UEL: NIA
 Extinguishing Media: Water for or foam followed by water.
 Special Fire Fighting Procedures: None.
 Unusual fire and explosive hazards: None

SECTION V: REACTIVITY DATA

Stability: Stable
 Conditions to avoid: None observed and none in ordinary use
 Incompatibility (Materials to avoid): Strong Oxidizing or reducing agents, metals
 Hazardous decomposition or by products: None
 Hazardous Polymerization: Will not occur.

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DIVISION GASA Y ALGOON CALLE 10 SUR NO. 280
12500 CIVAC, Jalisco • Mos.

DIVISION ANTI SEPTICOS CALLE 40 SUR \$JN CALU1 Jf.SteNo. 40
82500 CIVAC Jalisco • c. 1 Jof.
Tt: (71319 1111
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SECTION VI: HEALTH HAZARD DATA			
Route(s) of Entry:	Inhalation or skin contact.		
Accidental Ingestion:	No effects of exposure expected.		
Inhalation:	N/A		
Skin Contact:	N/A		
Health hazards (acute and chronic):	N/A		
Carcinogenicity:	NTP?	JARC?	OSHA Regulated?
No data found	N/A	N/A	N/A
Signs and Symptoms of exposure:	Prolonged and repeated contact may cause skin irritation.		
Emergency and first aid procedure:	Ordinary measures of personal hygiene are adequate, if inhaled, move to fresh air. In case of contact, flush with water.		

SECTION VII: SPILL, LEAK AND WASTE DISPOSAL PROCEDURES

Steps to be taken in case material is released or spilled: Flush with water and clean thoroughly.

Waste disposal method: Dilute it with lots of water and flush down sewer, non toxic to regulation for pollution.

Precautions to be taken in handling and storing: Store on cool place.

Other precautions: None

SECTION VIII: CONTROL MEASURES		
Respiratory protection (specific type):	None	
Ventilation: Good	Local Exhaust: N/A	Special: N/A
Protective Equipment:	Gloves to minimize skin contact	
Other protective clothing or equipment:	None in ordinary use.	
Eye protection:	Goggles should be used.	

SECTION IX: SPECIAL PRECAUTIONS

Waste disposal: Comply With all federal, State and local Regulation

SECTION X: TOXICOLOGICAL INFORMATION

Toxicity Test:

Acute Oral LD50 (mg/kg): 8,800 (rat)

Sensitization: 5,900 patients over 3 years= 0.03% Incidence of sensitization (Humans).

Skin Irritation: Non-irritating to rabbit skin (10% solution)

Non-irritating (Human RtPT 10% solution)

Mildly irritating to rabbit skin (as sold).

Eye Irritation: Non-irritating to rabbit eye. (10% aqueous solution)

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SECTION XECOLOGICAL INFORMATION

Biodegradability: Not determined.
Aquabc Toxicity No data is available on the adverse effects of this material on the environment

SECTION XII: TRANSPORT INFORMATION

Land Transportation:
DOT (Non-Bulk)
UN/NA Number: NONE
DOT Shipping Name: NOT REGULATED
Hazard Class: NONE
DOT (Bulk):
UN/NA Number: NONE
DOT Shipping Name: NOT REGULATED
Air Transportation (IATA):
UN Number: NONE
Proper Shipping Name: NOT REGULATED
Hazard Classification: NONE
Sea Transportation (IMO):
UN Number: NONE
Proper Shipping Name: NOT REGULATED
Hazard Classification: NONE
ADR. UN: NONE
Proper Shipping Name: NOT REGULATED
CLASS: NONE

SECTION XIII. ADDITIONAL INFORMATION

For purposes of this MSDS, Degasa S.A. De C.V. as responsible party, provides the Information herein which is intended for use by persons who have or should obtain professional knowledge and experience in the subjects discussed. DEGASA, products are used as materials in the production of products by industrial customers DEGASA, usually has only limited information about the products of its customers and their composition, methods of manufacture and use. Accordingly, DEGASA, S.A. DE C.V., MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS OR RELIABILITY OF INFORMATION HEREIN EXCEPT THAT SUCH INFORMATION IS, TO THE BEST OF DEGASA, SA DE C.V. KNOWLEDGE AND BELIEF, ACCURATE AS OF THE DATE INDICATED. Degasa sa de c.v recommends that customers independently test and evaluate its products and their products and processes in which degasa products are used in order to decide their safety and effectiveness.

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Tel: (7) 11-1MI
(7) 319-1002:
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MATERIAL SAFETY DATA SHEET
(MSDS)

SECTION I: PRODUCT IDENTIFICATION	
Issue D; ;te Ident	April 28, 2008.
y: Manufactured	PREP SOLUTION POVIDONE IODNE 1.18%
by:	Sion Biotext Medical Ltd Kibbutz Mlsgav Am, Mobile Post Upper Galilee, Israel 12155
Emergency Telephone Number:	01800-7138-647
Information Telephone Number:	(01777) 3191615
Distributed by:	Degasa, s.a. de c.v. Calle 13 este No.580 Civac, Jiutepec Morelos C.P. 62500

SECTION II: HAZARDOUS INGREDIENTS/IDENTITY INFORMATION						
<u>Hazardous Components</u>						
<u>Specific Chemical Identity-</u>						
Common name	Cas#	OSHA PEL	ACGIH	TLV	Other Limits% Recommended	
Potrvinilptrohdone-Iodine Polymer (PVP Iodne)	25655-4 1-8	NIA	NIA	NIA	N/A	1.0

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS			
Boiling Point:	About 105°C/1 atm	Specific Gravity (water=1):	1.034 (20°C)
Vapor Pressure (mmHg):	Negligible	Melting Point	NIA
Vapor De (Air-1):	1.6	Evaporation Rate (Butyl Acetate=1):	Negligible
Solubility in water. Completely soluble in water.			
Appearance and odor: Reddish brown with characteristic iodine odor, free of particulate matter in suspension. or oreling matter.			

SECTION IV: FIRE AND EXPLOSION HAZARD DATA	
Flash Point (Closed cup):	NIA
Flammable Limits:	LEL: NIA UEL: NIA
Extinguishing Media:	Water tor or foam followed by water.
Special fire Fighting Procedures:	None.
Unusual fire and explosive hazards:	None

SECTION V: REACTIVITY DATA	
Stability:	Stable
Conditions to avoid:	None observed and none In ord nary use.
Incompatibly (Materials to avoid):	Strong oxidizing or reducing agents, metals.
Hazardous decomposition or by products	None
Hazardous Polymerizat on-	Will not occur.

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SECTION XI: ECOLOGICAL INFORMATION

Biodegradability: Not determined.

Aquatic Toxicity: No data is available on the adverse effects of this material on the environment

SECTION XII: TRANSPORT INFORMATION

Land Transportation:

DOT (Non-Bulk):

UN/NA Number: NONE

DOT Shipping Name: NOT REGULATED

Hazard Class: NONE

DOT (Bulk):

UN/NA Number: NONE

DOT Shipping Name: NOT REGULATED

Air Transportation (IATA):

UN Number: NONE

Proper Shipping Name: NOT REGULATED

Hazard Classification: NONE

Sea Transportation (IMO):

UN/10 Number: NONE

Proper Shipping Name: NOT REGULATED

Hazard Classification: NONE

ADR: UN: NONE

Proper Shipping Name: NOT REGULATED

CLASS: NONE

SECTION XIII: ADDITIONAL INFORMATION

For purposes of this MSDS, O&gasa S.A. De C V, as responsible party, provides the information herein which is intended for use by persons who have or should obtain professional knowledge and experience in the subjects discussed. OEGASA, products are used as materials in the production of products by industrial C&stome<s. DEGASA, usually has only limited information about the P<oducts of its customers and their composition, methods of manufacture and use. Accordingly, OEGASA, MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS OR RELIABILITY OF INFORMATION HEREIN EXCEPT THAT SUCH INFORMATION IS, TO THE BEST OF ISP'S KNOWLEDGE AND BELIEF, ACCURATE AS OF THE DATE INDICATED. ISP recommends that customers independently test and evaluate its products and their products and processes in which degasa products are used in order to decide their safety and effectiveness.

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