

Ponceau S solution

sc-301558

Material Safety Data Sheet

Hazard Alert Code
Key:

EXTREME

HIGH

MODERATE

LOW

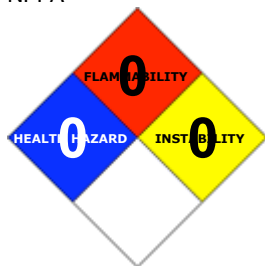
Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Ponceau S solution

STATEMENT OF HAZARDOUS NATURE

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

NFPA



SUPPLIER

Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
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EMERGENCY

ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

Section 2 – HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability:	0 	
Toxicity:	2 	
Body Contact:	2 	
Reactivity:	0 	
Chronic:	2 	

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4

CANADIAN WHMIS SYMBOLS



EMERGENCY OVERVIEW
RISK

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

■ Accidental ingestion of the material may be damaging to the health of the individual.

EYE

■ There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

SKIN

■ Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

■ There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.

■ Open cuts, abraded or irritated skin should not be exposed to this material.

■ Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

INHALED

■ Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

■ There is some evidence to suggest that the material can cause respiratory irritation in some persons.

The body's response to such irritation can cause further lung damage.

CHRONIC HEALTH EFFECTS

■ Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

Repeated minor oral exposure to acetic acid can cause blackening of the skin and teeth, erosion of the teeth, vomiting, diarrhoea, nausea. Repeated minor vapour exposure may cause chronic respiratory inflammation and bronchitis.

It is reported that workers exposed for 7 to 12 years at concentrations of 60 ppm acetic acid, plus one hour daily at 100–260 ppm had no injury except slight irritation of the respiratory tract, stomach, and skin although this report is equivocal as in another study different researchers found conjunctivitis, bronchitis, pharyngitis and erosion of exposed teeth apparently in the same workers.

Occupational exposures for 7–12 years to concentrations of 80–200 ppm, at peaks, caused blackening and hyperkeratosis of the skin and hands, conjunctivitis (but no corneal damage), bronchitis and pharyngitis and erosion of the exposed teeth (incisors and canines). Digestive disorders with heartburn and constipation have been reported at unspecified prolonged exposures.

Section 3 – COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
acetic acid glacial	64–19–7	5
C.I. Acid Red 112, tetrasodium salt	6226–79–5	0.1
water	7732–18–5	>60

Section 4 – FIRST AID MEASURES

SWALLOWED



- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

EYE

■ If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN

■ If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).

INHALED



- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

■ Treat symptomatically.

Section 5 – FIRE FIGHTING MEASURES

Vapour Pressure (mmHG):	Not Available
Upper Explosive Limit (%):	Not Applicable
Specific Gravity (water=1):	1.010
Lower Explosive Limit (%):	Not Applicable

EXTINGUISHING MEDIA

■ The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam.
- dry chemical powder.
- carbon dioxide.

FIRE FIGHTING

■

- Alert Emergency Responders and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

■

- Non combustible.
- Not considered to be a significant fire risk.

Decomposition may produce toxic fumes of: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

■ None known.

PERSONAL PROTECTION

Glasses:

Chemical goggles.

Gloves:

1.BUTYL 2.NEOPRENE 3.VITON

Respirator:

Type AB Filter of sufficient capacity

Section 6 – ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

■

- Clean up all spills immediately.
- Avoid breathing vapors and contact with skin and eyes.

MAJOR SPILLS

■ Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Emergency Responders and tell them location and nature of hazard.

Section 7 – HANDLING AND STORAGE

PROCEDURE FOR HANDLING

■

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- DO NOT allow clothing wet with material to stay in contact with skin

RECOMMENDED STORAGE METHODS

■

- Lined metal can, Lined metal pail/drum
- Plastic pail

STORAGE REQUIREMENTS



- Store in original containers.
- Keep containers securely sealed.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC	Notes
Canada – Alberta Occupational Exposure Limits	acetic acid glacial (Acetic acid)	10	25	15	37				
Canada – British Columbia Occupational Exposure Limits	acetic acid glacial (Acetic acid)	10		15					
US NIOSH Recommended Exposure Limits (RELs)	acetic acid glacial (Acetic acid)	10	25	15	37				
US OSHA Permissible Exposure Levels (PELs) – Table Z1	acetic acid glacial (Acetic acid)	10	25						
US ACGIH Threshold Limit Values (TLV)	acetic acid glacial (Acetic acid)	10		15					TLV Basis: Upper respiratory tract & eye Irritation ; pulmonary function
US – Minnesota Permissible Exposure Limits (PELs)	acetic acid glacial (Acetic acid)	10	25						
US – Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	acetic acid glacial (Acetic acid)	10	25						
US – Tennessee Occupational Exposure Limits – Limits For Air Contaminants	acetic acid glacial (Acetic acid)	10	25						
US – California Permissible Exposure Limits for Chemical Contaminants	acetic acid glacial (Acetic acid)	10	25	15	37	40			
US – Idaho – Limits for Air Contaminants	acetic acid glacial (Acetic acid)	10	25						
Canada – Quebec Permissible Exposure Values for Airborne Contaminants (English)	acetic acid glacial (Acetic acid)	10	25	15	37				
US – Hawaii Air Contaminant Limits	acetic acid glacial (Acetic acid)	10	25	15	37				
US – Alaska Limits for Air Contaminants	acetic acid glacial (Acetic acid)	10	25						

Canada – Saskatchewan Occupational Health and Safety Regulations – Contamination Limits	acetic acid glacial (Acetic acid)	10		15	
Canada – Yukon Permissible Concentrations for Airborne Contaminant Substances	acetic acid glacial (Acetic Acid)	10	25	25	43
US – Washington Permissible exposure limits of air contaminants	acetic acid glacial (Acetic acid)	10		20	
US – Michigan Exposure Limits for Air Contaminants	acetic acid glacial (Acetic acid)	10	25		
Canada – Prince Edward Island Occupational Exposure Limits	acetic acid glacial (Acetic acid)	10		15	TLV Basis: Upper respiratory tract & eye Irritation ; pulmonary function
US – Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants	acetic acid glacial (Acetic acid)	10	25		
Canada – Nova Scotia Occupational Exposure Limits	acetic acid glacial (Acetic acid)	10		15	TLV Basis: Upper respiratory tract & eye Irritation ; pulmonary function
US – Oregon Permissible Exposure Limits (Z-1)	acetic acid glacial (Acetic Acid)	10	25		
Canada – Northwest Territories Occupational Exposure Limits (English)	acetic acid glacial (Acetic acid)	10	26	15	39

The following materials had no OELs on our records

- water: CAS:7732–18–5

PERSONAL PROTECTION



RESPIRATOR

Type AB Filter of sufficient capacity

Consult your EHS staff for recommendations

EYE



- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

■ Wear chemical protective gloves, eg. PVC.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher

- (breakthrough time greater than 240 minutes according to EN 374) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
- Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

OTHER



- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

ENGINEERING CONTROLS

■ Local exhaust ventilation usually required. If risk of overexposure exists, wear an approved respirator.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Liquid.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°F)	Not Available	Viscosity	Not Available
Boiling Range (°F)	Not Available	Solubility in water (g/L)	Not Available
Flash Point (°F)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°F)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (°F)	Not Applicable	Vapour Pressure (mmHG)	Not Available
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	1.010
Lower Explosive Limit (%)	Not Applicable	Relative Vapor Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available

APPEARANCE

Dark red clear liquid.

Section 10 – CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY



- Presence of incompatible materials.
- Product is considered stable.

STORAGE INCOMPATIBILITY

■ Avoid reaction with oxidizing agents.

For incompatible materials – refer to Section 7 – Handling and Storage.

Section 11 – TOXICOLOGICAL INFORMATION

Ponceau S solution

TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS – Register of Toxic Effects of Chemical Substances.

C.I. ACID RED 112, TETRASODIUM SALT:

WATER:

Ponceau S solution:

■ No significant acute toxicological data identified in literature search.

■ Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of

exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.
Ponceau S solution:

ACETIC ACID GLACIAL:

TOXICITY	IRRITATION
Oral (human) TDLo: 1.47 mg/kg	Skin (human):50mg/24hr – Mild
Unreport (man) LDLo: 308 mg/kg	Skin (rabbit):525mg (open)-SEVERE
Oral (rat) LD50: 3310 mg/kg	Eye (rabbit): 0.05mg (open)-SEVERE
Inhalation (human) TLo: 816 ppm/3 min	
Inhalation (rat) LLo: 16000 ppm/4 hr	
Dermal (rabbit) LD50: 1060 mg/kg	

■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

NOAELs following repeated exposure to acetic acid and its salts range from 210 mg/kg bw/day (2–4 month acetic acid drinking water study; systemic toxicity) to 3600 mg/kg bw/day (acetic acid, sodium salt, 4 week dietary study; no effects reported). Signs of irritation/corrosion at the site of contact as well as systemic toxicity have been reported. Prolonged inhalation exposure to acetic acid results in muscle imbalance, increase in blood cholinesterase activity, decreases in albumins and decreased growth at concentrations greater than 0.01 mg/m³/day.

Groups of 20 mice/sex were given 0.025% sodium acetate in drinking water (about 60 mg/kg bw/day) for 1 week before breeding, during a 9-day breeding period and (females only) throughout pregnancy, lactation and until the offspring were weaned at 3 weeks of age. No effects on fertility were observed. The male offspring were given the same solution until they were 5–7 weeks old and were then examined in a 24-hour activity test. Examination of the litters revealed no overt deformities and normal pup weights at day 1 and day 21. The activity of offspring of the treated group was lower than that of controls during the first 12 hours but was similar during the second 12 hours. It is unknown if the decreased activity observed in the sodium acetate treated group to was a result of exposure in utero and/or post-weaning, since the pups were exposed during both time periods.). Acetic acid had no effects on implantation or on maternal or fetal survival in rats, mice or rabbits dosed via gavage during gestation days 6–19 at doses up to 1600 mg/kg/day. The number of abnormalities seen in either soft or skeletal tissues of the test groups did not differ from the number occurring in the controls. Sodium acetate had no effect on pregnant mice or offspring when mice were administered 1000 mg/kg bw, by gavage on days 8–12 of gestation.

C.I. ACID RED 112, TETRASODIUM SALT:

WATER:

CARCINOGEN

US – Rhode Island Hazardous Substance List	IARC
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Section 12 – ECOLOGICAL INFORMATION

No data

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
acetic acid glacial	LOW		LOW	HIGH
C.I. Acid Red 112, tetrasodium salt	HIGH		LOW	LOW

Section 13 – DISPOSAL CONSIDERATIONS

Disposal Instructions

All waste must be handled in accordance with local, state and federal regulations.

! Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common – the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible.

- Consult manufacturer for recycling options or consult Waste Management Authority for disposal if no suitable treatment or disposal facility can be identified.

Section 14 – TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

Section 15 – REGULATORY INFORMATION

Regulations for ingredients

acetic acid glacial (CAS: 64–19–7) is found on the following regulatory lists;

"Canada – Alberta Ambient Air Quality Objectives", "Canada – Alberta Occupational Exposure Limits", "Canada – British Columbia Occupational Exposure Limits", "Canada – Northwest Territories Occupational Exposure Limits (English)", "Canada – Nova Scotia Occupational Exposure Limits", "Canada – Prince Edward Island Occupational Exposure Limits", "Canada – Quebec Permissible Exposure Values for Airborne Contaminants (English)", "Canada – Saskatchewan Industrial Hazardous Substances", "Canada – Saskatchewan Occupational Health and Safety Regulations – Contamination Limits", "Canada – Yukon Permissible Concentrations for Airborne Contaminant Substances", "Canada Domestic Substances List (DSL)", "Canada Ingredient Disclosure List (SOR/88–64)", "Canada Toxicological Index Service – Workplace Hazardous Materials Information System – WHMIS (English)", "CODEX General Standard for Food Additives (GSFA) – Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) – List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) – High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US – Alaska Limits for Air Contaminants", "US – California Occupational Safety and Health Regulations (CAL/OSHA) – Hazardous Substances List", "US – California Permissible Exposure Limits for Chemical Contaminants", "US – Hawaii Air Contaminant Limits", "US – Idaho – Limits for Air Contaminants", "US – Massachusetts Oil & Hazardous Material List", "US – Michigan Exposure Limits for Air Contaminants", "US – Minnesota Hazardous Substance List", "US – Minnesota Permissible Exposure Limits (PELs)", "US – New Jersey Right to Know Hazardous Substances", "US – Oregon Permissible Exposure Limits (Z-1)", "US – Pennsylvania – Hazardous Substance List", "US – Rhode Island Hazardous Substance List", "US – Tennessee Occupational Exposure Limits – Limits For Air Contaminants", "US – Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants", "US – Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants", "US – Washington Permissible exposure limits of air contaminants", "US – Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants", "US ACGIH Threshold Limit Values (TLV)", "US CWA (Clean Water Act) – List of Hazardous Substances", "US CWA (Clean Water Act) – Reportable Quantities of Designated Hazardous Substances", "US Department of Transportation (DOT) List of Hazardous Substances and Reportable Quantities – Hazardous Substances Other Than Radionuclides", "US DOE Temporary Emergency Exposure Limits (TEELs)", "US EPA High Production Volume Program Chemical List", "US Food Additive Database", "US List of Lists – Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112(r) of the Clean Air Act", "US NIOSH Recommended Exposure Limits (RELs)", "US OSHA Permissible Exposure Levels (PELs) – Table Z1", "US Toxic Substances Control Act (TSCA) – Inventory"

C.I. Acid Red 112, tetrasodium salt (CAS: 6226–79–5) is found on the following regulatory lists;

"Canada Domestic Substances List (DSL)", "Canada Toxicological Index Service – Workplace Hazardous Materials Information System – WHMIS (English)", "US Toxic Substances Control Act (TSCA) – Inventory"

water (CAS: 7732–18–5) is found on the following regulatory lists;

"Canada Toxicological Index Service – Workplace Hazardous Materials Information System – WHMIS (English)", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US – Pennsylvania – Hazardous Substance List", "US DOE Temporary Emergency Exposure Limits (TEELs)", "US NFPA 30B Manufacture and Storage of Aerosol Products – Chemical Heat of Combustion", "US Toxic Substances Control Act (TSCA) – Inventory", "US TSCA Section 8 (a) Inventory Update Rule (IUR) – Partial Exemptions"

No data for Ponceau S solution (CW: 8859176)

Section 16 – OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the author makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The author makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. For additional technical information please call our toxicology department on +800 CHEMCALL.

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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