

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers: B122 SDS 20%

1.2 Recommended Use: Forensic, Research

1.3 Company Info: Serological Research Institute (SERI), 3053 Research Drive, Richmond, CA 94806 USA

Phone: 1-510-223-7374 Fax: 1-510-222-8887

1.4 Emergency Phone: 911, American Association of Poison Control Centers: 1-800-222-1222

SECTION 2: HAZARDS IDENTIFICATION



Emergency overview : WARNING!

HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: SKIN, EYES.

Do not inhale. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Physical state : Liquid

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

Routes of entry : Inhalation. Ingestion.

Potential acute health effects

Inhalation : Toxic by inhalation. Irritating to respiratory system. Ingestion : Toxic if swallowed. Skin : Toxic in contact with skin. Irritating to skin. Eyes : Irritating to eyes.

Potential chronic health effects, Carcinogenicity : No known significant effects or critical hazards., Mutagenicity : No known significant effects or critical hazards., Teratogenicity : No known significant effects or critical hazards., Developmental effects : No known significant effects or critical hazards., Fertility effects : No known significant effects or critical hazards., Target organs : May cause damage to the following organs: skin, eyes.

Medical conditions aggravated by overexposure : Pre-existing disorders involving any target organs mentioned in this SDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Sodium Dodecyl Sulfate, CAS number: 151-21-3

3.2 Component Percentage/Concentration has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media : Use dry chemical powder.

Not suitable : Do not use water jet.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, metal oxide/oxides

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

Special remarks on fire Hazards : Thermal decomposition may release toxic and/or hazardous gases.

Special remarks on explosion hazards : Dust can combine with air to form an explosive mixture Thermal decomposition may release toxic and/or hazardous gases.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions : No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

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

Spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Handling : Do not get in eyes or on skin or clothing. Do not inhale. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: nitrile rubber

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: Liquid, Color: Clear, White Foam b) Odor: No data available, c) Odor Threshold: No data available, d) pH: No data available, e) Melting point/freezing point: No data available, f) Initial boiling point and boiling range: No data available, g) Flash point: No data available, h) Evaporation rate: No data available, i) Flammability (solid, gas): No data available, j) Upper/lower flammability or explosive limits: No data available, k) Vapor pressure: No data available, l) Vapor density: No data available, m) Relative density: No data available, n) Water solubility: No data available, o) Partition coefficient: noctanol/water: No data available, p) Auto-ignition temperature: No data available, q) Decomposition temperature: No data available, r) Viscosity: No data available, s) Explosive properties: No data available, t) Oxidizing properties: No data available

9.2 Other safety information: No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No data available, Chemical stability: Stable under recommended storage conditions, Possibility of hazardous reactions: No data available, Conditions to avoid: No data available, Incompatible materials: Highly reactive or incompatible with the following materials: oxidizing materials and acids, Hazardous decomposition products: Other decomposition products - No data available, In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Product/ingredient name Test Route Species Result, Sodium Dodecyl Sulfate LD50 Dermal Rabbit 580 mg/kg, LD50, Intraperitoneal, Rat 210 mg/kg, LD50 Intravenous Rat 118 mg/kg, LD50 Oral Rat 1288 mg/kg, Carcinogenicity: No known significant effects or critical hazards. Mutagenicity: No known significant effects or critical hazards. Teratogenicity: No known significant effects or critical hazards.

SECTION 12: ECOLOGICAL INFORMATION

Aquatic ecotoxicity Product/ingredient name Result Species Exposure Sodium Dodecyl Sulfate Acute EC50 104.8 mg/L Algae 48 hours Acute EC50 31 mg/L Daphnia 48 hours Acute EC50 6 mg/L Daphnia 48 hours Acute EC50 1200 to 1400 ug/L Marine water Fish - Atlantic silverside - Menidia menidia 96 hours Acute LC50 4.62 mg/L Fish 96 hours Acute LC50 4.5 mg/L Fish 96 hours Acute LC50 2.43 mg/L Fresh water Daphnia - Water flea - Daphnia ambigua - Neonate 48 hours Acute LC50 1.8 mg/L Fresh water Daphnia - Water flea - Daphnia magna - Neonate - 24 hours 48 hours Acute LC50 1.31 mg/L Fish 96 hours Acute LC50 1.26 mg/L Fresh water Daphnia - Water flea - Ceriodaphnia dubia - Neonate 48 hours Acute LC50 5800 ug/L Marine water Crustaceans - Spot shrimp - Pandalus platyceros 48 hours Acute LC50 5100 to 6000 ug/L Fresh water Daphnia - Water flea - Daphnia magna - <24 hours 48 hours Acute LC50 4900 ug/L Fresh water Daphnia - Water flea - Daphnia pulex - Neonate - < 24 hours 48 hours Acute LC50 4800 to 6500 ug/L Fresh water Daphnia - Water flea - Daphnia magna 48 hours Acute LC50 4600 to 6400 ug/L Fresh water Daphnia - Water flea - Daphnia magna 48 hours Acute LC50 3500 to 6700 ug/L Marine water Crustaceans - American lobster - Homarus americanus - LARVAE 48 hours Acute LC50 3300 to 4300 ug/L Fresh water Daphnia - Water flea - Daphnia magna - <24 hours 48 hours, Acute LC50 3000 to 5200 Crustaceans - Calanoid 48 hours

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

SECTION 13: DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION

No special transport regulations.

SECTION 15: REGULATORY INFORMATION

United States, HCS Classification : Toxic material, Irritating material, Target organ effects, U.S. Federal regulations : TSCA 8(a) IUR: Partial exemption United States inventory (TSCA 8b): This material is listed or exempted. TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory. SARA 302/304/311/312 extremely hazardous substances: No products were found., SARA 302/304 emergency planning and notification: No products were found., SARA 302/304/311/312 hazardous chemicals: Sodium Dodecyl Sulfate, SARA 311/312 MSDS distribution - chemical inventory - hazard identification:, Sodium Dodecyl Sulfate: Immediate (acute) health hazard, Delayed (chronic) health hazard, Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found. DEA List I Chemicals (Precursor Chemicals): Not listed DEA List II Chemicals (Essential Chemicals): Not listed, New Jersey Hazardous Substances: This material is listed.

Risk phrases : R21/22- Harmful in contact with skin and if swallowed., R36/37/38- Irritating to eyes, respiratory system and skin.

Safety phrases : S36/37- Wear suitable protective clothing and gloves.

SECTION 16: OTHER INFORMATION

National Fire Protection Association (U.S.A.) Health 1, Flammability 3, Instability 0

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This material is for research and forensic applications only. It is not intended for food, drug, household, agricultural, or cosmetic use. All material should be handled only by technically qualified individuals experienced in handling potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information based on all sources available. Serological Research Institute shall not be held liable for any damage resulting from handling or from contact with the above product.