



Special Effects Equipment & Supplies

14525 Bessemer St. Van Nuys, CA. 91411

(818) 994-3049

For Chemical Emergency call Infotrac @ 1-800-535-5053

Material Safety Data Sheet

Section 1 - Product Identification

Product Name: "A" Smoke
Chemical Name: Trade Secret

Section 2 - Ingredients

<u>Chemical Name</u>	<u>CAS#</u>	<u>Percentage</u>
Trade Secret	64-19-7	100%
Exposure Limits	Permissible Exposure Limit:	10ppm
	Ceiling Limits:	N/A
	Short Term Exposure Limit:	N/A
	Skin hazard?	Yes

Section 3 - Physical/Chemical Characteristics

Boiling Point	245F	Solubility in Water	100%
Vapor Pressure (mm Hg)	11.4	Specific Gravity (H2O = 1)	1.02
Vapor Density (Air = 1)	2.1	Melting Point	62F
Appearance and Odor / Odor threshold	Clear, colorless liquid. Strong, vinegar-like odor. >0.21ppm		
Evaporation Rate (Butyl Acetate = 1)	N/A	PH	N/A
Freezing Point	N/A		

Section 4 - Fire and Explosion Data

Lower Explosive/Flammability Limit	N/A	Flash Point	103F
Upper Explosive/Flammability Limit	N/A	Autoignition Temperature	960F
Extinguishing Media	Water spray, dry chemical, carbon dioxide, or "alcohol" foam.		
Fire Fighting Measures	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use water spray to keep fire-exposed containers cool.		
Fire or Explosion Hazards	Material is combustible . Keep away from heat and flame.		

Section 5 - Reactivity Data

Chemical Stability	Stable
Incompatibility	Material can react vigorously with: aminos, bases, oxidizers.
Hazardous Decomposition or Byproducts	CO2 and CO may form when heated to decomposition. May also release toxic and irritating vapors.
Hazardous Polymerization	Will not occur.

Section 6 - Health Hazard Data

Routes of Entry	Inhalation, Skin, Eyes, Ingestion.	
Health Hazards	Causes severe skin and eye burns. Vapor irritation to the eyes and respiratory tract. Harmful if swallowed. Combustible liquid & vapor.	
Carcinogenicity	Not listed	
Signs and Symptoms of Exposure	Inhalation: Vapor irritating.	
	Eyes: Contact with liquid causes severe burns. Vapor irritating.	
	Skin: Contact with liquid causes severe burns.	
	Ingestion: may be corrosive to the gastrointestinal tract if swallowed.	
Medical conditions generally aggravated by exposure	Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.	
Emergency and First Aid Procedures	Eyes: In case of contact, immediately flush with plenty of water for at least 15 mins. Get medical attention.	
	Skin: Immediately flush with plenty of water for at least 15 mins. while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.	
	Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Treat symptomatically. Get medical attention.	
	Ingestion: Call a physician or poison control center immediately. Do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person.	
Chronic Exposure	Repeated or prolonged exposures may cause darkening of the skin, erosion of exposed teeth, and chronic inflammation of the nose, throat, and bronchial tubes.	

Section 7 - Precautions for Safe Handling and Use

Spill or Release Data	Eliminate all ignition sources. Wear a self-contained breathing apparatus and appropriate personal protective equipment (See Section 8).
	For small spills, absorb spill with inert material, then place in a chemical waste container. For large spills, flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. For large spills, dike for later disposal. Neutralize spill and/or washings with soda ash or lime.
Waste Disposal Method	Observe all laws concerning health and environment: incineration
Handling and Storage	Keep from contact with oxidizing materials. Since emptied containers retain product residue, follow label warnings even after container is emptied.
Other Precautions	N/A

Section 8 - Control Measures

Respiratory Protection	An approved respirator must be worn if exposure is likely to exceed recommended exposure limits. Respirator type: acid gas.
Protective Gloves	Impermeable gloves.
Eye Protection	Wear a full-face respirator, if needed.
Footwear	Wear impermeable boots.
Other Protective Equip.	Wear an impermeable apron or smock.
Ventilation	Good general ventilation (typically 10 air changes per hour) should be used.
	Ventilation rates should be matched to conditions. Local exhaust ventilation
	or an enclosed handling system may be needed to control airborne levels below recommended exposure limits.
Work/Hygienic Practices	Eye bath, safety shower and washing facilities are recommended.

To the best of our knowledge, the information contained above is accurate. However, neither the above named supplier nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained above.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described above, we cannot guarantee that these are the only hazards that exist.

Prepared: October 2006



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Material Safety Data Sheet

Section 1 - Product Identification

Product Name: "B" Smoke
Chemical Name: Trade Secret

Section 2 - Ingredients

Chemical Name	CAS#	Percentage
Trade Secret		56-88%
Trade Secret		12-44%
Exposure Limits	Permissible Exposure Limit:	35ppm
	Ceiling Limits:	N/A
	Short Term Exposure Limit:	N/A
	Skin Hazard?	Yes

Section 3 - Physical/Chemical Characteristics

Boiling Point	97F	Solubility in Water	Soluble
Vapor Pressure (mm Hg)	115	Specific Gravity (H2O = 1)	0.9
Vapor Density (Air = 1)	1:02	Melting Point	-107F
Appearance and Odor / Odor threshold	Colorless liquid with a sharp, pungent, ammonia-like odor. 50 ppm		
Evaporation Rate (Butyl Acetate = 1)	N/A	PH	11.6
Freezing Point	N/A		

Section 4 - Fire and Explosion Data

Lower Explosive/Flammability Limit	16%(NH3)	Flash Point	N/A
Upper Explosive/Flammability Limit	25%(NH3)	Autoignition Temperature	1202F
Extinguishing Media	Dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, fog, or regular foam.		
Fire Fighting Measures	Move container from fire area if you can do so without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks. Extinguish using agent indicated. Use flooding amounts of water as a fog from as far a distance as possible. Use water spray to absorb corrosive vapors. Avoid breathing corrosive vapors; keep upwind.		
Fire or Explosion Hazards	Slight fire hazard when exposed to heat or flame.		

Section 5 - Reactivity Data

Chemical Stability	Stable under normal temps. and pressures.
Incompatibility	Acids, acrolein, dimethyl sulfate, fluorine, gold, iodine, mercury, metals, alloys, nitromethane, oleum, propiolactone(beta), propylene oxide, silver nitrate & acetylene, silver nitrate & sodium hydroxide, silver oxide, and silver permanganate.
Hazardous Decomposition or Byproducts	May produce corrosive vapors of ammonia and toxic oxides of nitrogen.
Hazardous Polymerization	Does not occur under normal temps. and pressures.

Section 6 - Health Hazard Data

Routes of Entry	Inhalation, Skin contact, Eye Contact, Ingestion.
Health Hazards	See signs and symptoms of exposure.
Carcinogenicity	Not listed.
Signs and Symptoms of Exposure	<p>Inhalation: <u>ACUTE EXPOSURE</u>- Concentrations of 5 ppm of ammonia vapor may cause mild irritation; 9-50 ppm may cause nasal dryness, olfactory fatigue, and moderate irritation; and 150 ppm may cause laryngeal spasm. Exposure to 500 ppm for 30 mins. May cause cyclic hyperpnea, increased blood pressure and pulse rate, and upper respiratory tract irritation, sometimes persisting for 24 hours. 700 ppm may cause immediate irritation; 1500-10,000 ppm may cause dyspnea, convulsive coughing, chest pain, respiratory spasm, pink frothy sputum, rapid asphyxia, and delayed pulmonary edema which may be fatal. Other effects may include swelling of the lips, restlessness, runny nose, headache, salivation, nausea, vomiting, glottal edema, pharyngitis, tracheitis, and difficulty in speaking. Death may result from bronchopneumonia or asphyxiation due to spasms, inflammation, or edema of the larynx. Residual effects from acute exposures may include hoarseness, productive cough, decreased respiratory function, chronic airway dysfunction, alveolar disease, bronchiolitis, bronchiectasis, emphysema, and anxiety neuroses.</p> <p><u>CHRONIC EXPOSURE</u>- Depending on the concentration and duration of exposure, repeated or prolonged exposure may cause inflammatory and ulcerative changes in the mouth, possible bronchial and gastrointestinal disturbances, and effects similar to acute exposure. Tolerance to usually irritating concentrations may be acquired by adaptation.</p> <p>Skin Contact: <u>ACUTE EXPOSURE</u>- Vapors may cause mild irritation. Direct contact with the liquid of high vapor concentrations (>30,000 ppm ammonia) may cause severe pain, a stinging sensation, severe burns and vesiculation, and possibly brownish stains. The corroded areas are soft, gelatinous, and necrotic, and the tissue destruction may be deep. If burns are extensive, death may occur. Rarely, ammonia vapors may cause urticaria.</p> <p><u>CHRONIC EXPOSURE</u>- Effects depend on the concentration and duration of exposure. Repeated or prolonged contact may cause dermatitis or effects similar to acute exposure.</p> <p>Eye Contact: <u>ACUTE EXPOSURE</u>- 1 drop of a 9% solution in human eyes cause immediate severe pain, blepharospasm, and loss of corneal epithelium despite irrigation. The following day there was slight corneal edema and wrinkling on the posterior surface; recovery was complete in 3-4 days. Contact with the liquid or high vapor concentrations (<2500 ppm ammonia) may also cause severe irritation, swelling of the eyelids, lacrimation, palpebral edema, increased intraocular pressure, oval semidilated fixed pupils, corneal ulceration, and blindness, possibly permanent. The degree of injury depends on the concentration and duration of contact. There may be corneal and lenticular opacification and iritis, accompanied by hypopyon or hemorrhages and possibly extensive loss of pigment from the posterior pigment layer of the iris. Corneal anesthesia is possible allowing damage to occur before warning discomfort is felt. In severe burns, the extent of the injury may not be immediately apparent. Late complications may include persistent edema, vascularization and scarring of the cornea, permanent opacity, angle closure, acute-angle glaucoma, staphyloma, cataract, atrophy of the retina and iris, and symplepharon.</p> <p><u>CHRONIC EXPOSURE</u>- Effects depend on the concentration and duration of exposure. Repeated or prolonged contact may result in conjunctivitis or effects as in acute exposure.</p> <p>Ingestion: <u>ACUTE EXPOSURE</u>- May cause immediate pain, circumoral burns and corrosion of the mucous membranes which at first turn white and soapy and then become brown, edematous and ulcerated. There may be profuse salivation and difficulty or inability to swallow or speak. Even when there is no evidence of oral burns, the esophagus and stomach may be involved with burning pain, vomiting and diarrhea. The vomitus may be thick and slimy with mucous, and later contain blood and shreds of mucosa. Epiglottal edema may result in respiratory distress and possibly asphyxia. Shock with marked hypotension, weak and rapid pulse, shallow respirations and clammy skin may occur. Circulatory collapse may ensue, and if uncorrected, lead to renal failure. In severe cases, esophageal or gastric perforation are possible and may be accompanied by mediastinitis, substernal pain, peritonitis, abdominal rigidity, and fever. Esophageal, and possibly gastric or pyloric stricture, may occur within a few weeks, but may be delayed for months or even years. Death may result within a short time from asphyxia, circulatory collapse, or aspiration of even minute amounts. If death is delayed it may be due to the complications of perforation, pneumonia, or the effects of stricture formation.</p> <p><u>CHRONIC EXPOSURE</u>- Depending on the concentration, repeated ingestion may result in inflammatory and ulcerative effects on the oral mucous membranes and other effects as with acute ingestion.</p>

Section 6 - Health Hazard Data Cont.

Medical conditions generally aggravated by exposure	Persons with pre-existing eye disorders or impaired respiratory function may be more susceptible to the effects of this material.
Emergency and First Aid Procedures	Eyes: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Continue irrigating with normal saline until the PH has returned to normal (30-60 minutes). Cover with sterile bandages. Get medical attention immediately.
Skin:	Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 mins). In case of chemical burns, cover area with sterile, dry dressing. Bandage securely, but not too tightly. Get medical attention immediately.
Inhalation:	Remove from exposure area to fresh air immediately. If breathing has stopped, give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Treat symptomatically and supportively. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.
Ingestion:	Dilute the alkali by giving water or milk immediately and allow vomiting to occur. Avoid gastric lavage or emetics. Esophagoscopy is the only way to exclude the possibility of corrosion in the upper gastrointestinal tract; If corrosion is suspected, esophagoscopy should usually be performed within 24 hours. Maintain airway and treat shock. If vomiting occurs, keep head below hips to help prevent aspiration. Get medical attention immediately.

Section 7 - Precautions for Safe Handling and Use

Spill or Release Data	Do not touch spilled material. Stop leak if you can do it without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For small dry spills, with clean shovel place material into clean, dry container and cover. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.
Waste Disposal Method	Disposal must be in accordance with standards applicable to generators of hazardous waste.
Handling and Storage	Store away from incompatible substances, in a dry, cool ventilated area. For Handling - see Section 8
Other Precautions	Observe all federal, state and local regulations when storing or disposing of this substance. For assistance, contact the district director of the E.P.A.

Section 8 - Control Measures

Respiratory Protection	The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by NIOSH/MSHA.
Protective Gloves	Impervious gloves to prevent contact with skin.
Eye Protection	Splash-proof and dust-resistant safety goggles and a face shield.
Other Protective Equip.	Impervious clothing and equip. to prevent any possibility of skin contact with this substance.
Ventilation	Provide local exhaust ventilation to meet published exposure limits. Ventilation equipment must be explosion-proof.
Work/Hygienic Practices	Eye wash fountain and a quick drench shower are recommended.

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