MATERIAL SAFETY DATA SHEET

PRODUCT NAME: AMMONIA INHALANT

CATALOG NUMBER: 283010

SECTION I Product Identification and Emergency Information

Distributor: Young Dental Manufacturing
13705 Shoreline Ct. E. ● Earth City, MO 63045
1-800-325-1881
Emergency Phone No: 1-800-535-5053
Outside the United States: 1-352-323-3500

Chemical Name: Ammonia Inhalant Solution

SECTION II Hazardous Components

COMPONENT	CAS No.	OSHA PEL	ACGIH TWA	%
Ammonia	7664-41-7	50 ppm	25 ppm	17.5
Ethyl Alcohol	64-17-5	1000 ppm	1000 ppm	37.5

NOTE: None of the components present in this formulation are currently classified as carcinogens in the NTP Annual Report on Carcinogens, IARC Monographs or by OSHA.

SECTION III Typical Physical and Chemical Properties

Solubility in water: Very soluble
Boiling point: Unknown
Vapor pressure: Not determined
Vapor density (Air = 1): Not determined
Evaporation rate (Butyl Acetate = 1): Unknown
Specific gravity (Water = 1): 0.891 25/25
Percent Volatile: 55%
Appearance: Clear pink to light red liquid with the pungent odor of ammonia

SECTION IV Fire and Explosion Data

Flashpoint: Less than 10°C (50°F) (Pensky Martens Closed Cup)
Flammable limits (In air % by volume): Unknown
Autoignition temperature: Ammonia – 651°C (1204°F) Ethyl Alcohol – 363°C (685°F)
Extinguishing media: "Alcohol resistant" foam, carbon dioxide, dry chemical
Special fire fighting instructions: Remove all sources of ignition. Move exposed containers from fire area if it can be done without risk. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Spray extinguishing media directly into base of flames. Water may be used to keep fire-exposed containers cool.
NOTE: Individuals should perform only those fire-fighting procedures for which they have been trained.

Fire and explosion hazards: When heated, mixture will give off ammonia gas, a strong irritant to eyes, respiratory tract, and mucous membranes. Other toxic gases produced are oxides of nitrogen, carbon monoxide, carbon dioxide and hydrogen. Closed containers exposed to heat may develop pressure and explode.
Alcohol vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires.

SECTION V Reactivity Data

Conditions to avoid: Sunlight, heat (heating above ambient temperatures causes the vapor pressure of the solution to increase)

Hazardous polymerization: Will not occur; product will react exothermically with acids

Hazardous decomposition products: Ammonia will decompose to hydrogen and oxides of nitrogen when heated. Carbon monoxide gas may also be produced when heated.

Incompatibility (materials to avoid): Acids, most common metals, strong oxidizing agents, brass, zinc, chlorine, aluminum, copper, bronze, mercury, dimethyl sulfate, acetyl chloride

NFPA ratings: Health – 3 Flammability – 3 Reactivity – 1

SECTION VI Health Hazard Information

Primary Routes of Exposure: Inhalation, eye contact, skin contact, ingestion

Signs and Symptoms of Overexposure:

Inhalation: Irritation or burns of the respiratory system, headache, coughing, lung congestion or inflammation, pulmonary edema, breathing difficulty, headache, dizziness, drowsiness, loss of appetite, inability to concentrate

Skin contact: Local irritation, dry skin, burns

Eye contact: Severe irritation or burns, may lead to blindness

Ingestion: Burning pain in mouth and throat, constriction of throat, coughing followed by nausea, vomiting or diarrhea; ingestion may prove fatal

Medical conditions aggravated by exposure:

Individuals with pre-existing nervous system disorders, skin disorders, eye problems or impaired respiratory function may be more susceptible to the effects of overexposure.

SECTION VII Emergency and First Aid Procedures

Inhalation: Remove immediately to fresh air. Give artificial respiration if victim is not breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

Eye Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes. Eyelids should be held apart and away from eyeball for thorough rinsing. Do not permit victim to rub eyes. Get immediate medical attention.

Skin Contact: Immediately flush skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Do not rub or apply ointment to affected area. Obtain medical attention if irritation persists. Wash clothing before reuse.

Ingestion: Contact a Poison Control Center IMMEDIATELY. DO NOT INDUCE VOMITING. If conscious, have victim swallow large amounts of water. Do not give anything by mouth to an unconscious or convulsing person. Get IMMEDIATE medical attention.

SECTION VIII Personal Protection

Eye Protection: Not required for product (single dose inhalant) use. When handling bulk material, always wear gas-tight, splash-proof chemical safety goggles meeting OSHA 29CFR 1910.133 specifications.

Skin Protection: Not required for product (single dose inhalant) use. Use rubber gloves, protective suit, face shield and overshoes when handling bulk product.

Ventilation: Normal room ventilation for product (single dose inhalant) use. When handling bulk material, use general or local exhaust ventilation to meet TLV requirements. Where engineering controls are not feasible or sufficient to achieve full conformance with acceptable exposure limits, use NIOSH approved respiratory protection equipment. Care must be taken to assure that any respirator chosen is capable of protecting the user from both ammonia and ethyl alcohol vapors. In some cases, a self-contained breathing apparatus may be advisable.

SECTION IX Spill Control and Disposal

In Case of Spills: For large spills, stop leak if you can do so without risk. Extinguish all sources of ignition. Wear self-contained breathing apparatus, chemical safety goggles and full protective clothing. Ventilate area. Contain diking with non-combustible absorbent materials and place residue in DOT approved waste container.

Waste disposal: Spilled liquids should be contained and not washed into sewers or ground water. Dispose of in accordance with all Federal, State and local regulations.

SECTION X Transport and Storage

Handling: All ignition sources should be eliminated. Remove closure carefully; internal pressure may be present. Keep closure up to prevent leakage. When contents are being transferred, metallic containers must be bonded to the receiving container and grounded to avoid static discharges. Never use pressure to empty containers. Replace closure carefully after each opening.
Storage: Protect containers from physical damage. Detached or outside storage is preferred. Inside storage should be in an NFPA approved flammable liquids storage room or cabinet. Store in a corrosion-proof area at temperatures below 25°C (77°F). Do not store in direct sunlight. Isolate from incompatible materials. Keep containers tightly closed.
Other Precautions: Containers, even those that have been emptied, will retain product residue and vapors. Handle empty containers as if they were full.

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