

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Catalog Number A-6052
Product Use Bullet Hole Testing Kit
SDS Date March 30, 2016
Manufacturer Avishg Shpitzer – Chemical & Forensic Services
 Ben Baba 3, Jerusalem 9359144, Israel
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture	Hazard statement	Code	Pictogram
Acute toxicity ,Oral (Category 4)	Harmful if swallowed	H302	
Skin corrosion (Category 1A)	Causes severe skin burns and eye damage	H314	
Specific target organ toxicity - single exposure (Category 3)	May cause respiratory irritation	H335	
Serious eye damage (Category 1)	Causes serious eye damage	H318	
Flammable liquids (Category 2)	Highly flammable liquid and vapour	H225	
Specific target organ toxicity - single exposure (Category 3)	May cause drowsiness or dizziness	H336	

Precautionary statement	Code
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.	P303 + P361 + P353
If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor	P304 + P340 + P310
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	P305 + P351 + P338
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.	P210
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.	P261

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients of the product:

Comp. No.	Tube No.	CHEMICAL NAME	SYNONYM	CONCENTRATION	CAS #
(1).	1	Acetic acid	Ethanoic acid	5% aqueues solution	64-19-7
(2).	2	Rhodizonic acid, disodium salt	3,4,5,6-Tetraoxocyclohexene-1,2-diol disodium salt	aqueus solution*	523-21-7
(3).	3	Ammonium hydroxide	Ammonia aqueous	5% aqueues solution	1336-21-6
(4).	4	1-Propanol	Propan-1-ol	Propanolic solution*	71-23-8
(5).	4	Dithiooxamide	Ethanedithioamide	Propanolic solution*	79-40-3

* In accordance with paragraph (i) of Hazard communication 29 CFR 1910.1200, the exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

EYES	Irrigate immediately. If chemicals contact the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. Contact lenses should not be worn when working with this chemical
SKIN	Water wash immediately. If chemicals contact the skin, immediately wash the contaminated skin with water. If this chemicals penetrate the clothing, immediately remove the clothing and wash the skin with water. If symptoms occur after washing, get medical attention immediately
INHALATION	Respiratory support. If a person breathes large amounts of the chemicals, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible
INGESTION	Medical attention immediately. If this chemicals have been swallowed, get medical attention immediately

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES	Flammable
EXPLOSION HAZARD	Vapors may form explosive mixtures with air
SUITABLE EXTINGUISHING MEDIA	Use dry chemical powder, carbon dioxide, alcohol foam, water spray or fog
UNSUITABLE EXTINGUISHING MEDIA	Not available
PRODUCTS OF COMBUSTION	Nitric oxide, and ammonia fumes. Carbon oxides

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Remove all sources of ignition. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

LARGE SPILL:

Flammable, corrosive, and poisonous liquids. Remove all sources of ignition. Keep away from heat. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Be careful that the product is not present at a concentration level above TLV. Check TLV on the SDS and with local authorities.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Do not use the product if the protective plastic casing, containing the ampoules, is not sealed.
Use the product in a well-ventilated area.
Avoid accidental contact of the chemicals with skin and eyes. Do not ingest. Do not breathe fumes.
If symptoms of exposure are experienced seek medical advice immediately.

CONDITIONS FOR SAFE STORAGE:

Keep the product away from children. Protect from accidental breakage.
Keep the product in a cool, well-ventilated area. Keep away from ignition sources and hot surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION:

Respiratory protection is not required under normal and intended use of the product.
Self contained breathing apparatus is required during fire fighting and spill clean up.

VENTILATION RESPIRATORY PROTECTION:

Room ventilation is expected to be adequate except during spills or fires.

PROTECTIVE GLOVES:

Required in case of exposure to chemicals or spill clean up.

EYE PROTECTION:

Required in case of exposure to chemicals or spill clean up.

GENERAL HYGIENE CONSIDERATIONS:

Handle in accordance with good hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

EXPOSURE LIMITS:

No.	Substance	PEL	TLV
(1).	Acetic acid 5% solution	N/A	N/A
(2).	Ammonium hydroxide 5% solution	N/A	N/A
(3).	1-Propanol	500 mg/m3 TWA	492 mg/m3 TWA

ANNOTATIONS:

PEL	Permissible Exposure Limit, established by the Occupational Safety and Health Administration (OSHA)
TLV	Threshold Limit Value, established by the American Conference of Governmental Industrial Hygienist (ACGIH)
TWA	Time-weighted average

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

1st tube (acetic acid, aqueous solution):

Physical state and appearance	Liquid, colorless
Upper/lower flammability or explosive limits	Not available
Odor	Vinegar like
Vapor pressure	Not available
Odor threshold	Not available
Vapor density	Not available
pH	Acidic
Relative density (H ₂ O=1)	Not available
Melting point/freezing point;	0 ^o C
Initial boiling point and boiling range	100 ^o C
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Partition coefficient: n -octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Solubility	Soluble in water

2nd tube (Rhodizonic acid salt, aqueous solution):

Physical state and appearance	Liquid, colorless
Upper/lower flammability or explosive limits	Not available
Odor	Not available
Vapor pressure	Not available
Odor threshold	Not available
Vapor density	Not available
pH	Not available
Relative density (H ₂ O=1)	1
Melting point/freezing point;	Not available
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Partition coefficient: n -octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Solubility	Soluble in water

3rd tube (ammonium hydroxide, aqueous solution):

Physical state and appearance	Liquid, colorless
Upper/lower flammability or explosive limits	Not available
Odor	Pungent
Vapor pressure	Not available
Odor threshold	Not available
Vapor density	Not available
pH	Basic
Relative density (H ₂ O=1)	Not available
Melting point/freezing point;	Not available
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Partition coefficient: n -octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Solubility	Soluble in water

4th tube (1-propanol solution):

Physical state and appearance	Liquid, colorless
Upper/lower flammability or explosive limits	Not available
Odor	Alcoholic
Vapor pressure	Not available
Odor threshold	Not available
Vapor density	Not available
pH	Basic
Relative density (H ₂ O=1)	0.8
Melting point/freezing point;	-126.2 ^o C
Initial boiling point and boiling range	97 ^o C
Flash point	Not available
Evaporation rate	Not available
Flammability	Not available
Partition coefficient: n -octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Solubility	Soluble in water

SECTION 10: STABILITY AND REACTIVITY

STABILITY & REACTIVITY:

The product is stable under normal temperatures and pressures.

INCOMPATIBILITIES:

Excessive heat, sparks, flames. Corrosive in presence of metals: zinc, copper, aluminum. Reactive with acids.

HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS:

Nitric oxide, and ammonia fumes. Carbon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY:

LD50 (oral, rat) = 1870 mg/kg (1-Propanol)

CARCINOGENICITY DATA	Not available
REPRODUCTIVE EFFECTS	Not available
OTHER TOXIC EFFECTS ON HUMANS	Ammonium hydroxide may affect genetic material based on tests with microorganisms and animals. May cause cancer (tumorigenic) based on animal data. No human data found.

SECTION 12: ECOLOGICAL INFORMATION

To the best of our knowledge the ecological effects of this product have not been thoroughly investigated

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Small quantities present in the testing tubes may be disposed of in a domestic waste.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: CLASS 3- Flammable liquid.

This package conforms to IATA Dangerous Goods Regulations: Dangerous Goods in Accepted Quantity.

This package conforms to 49 CFR 173.4 for domestic highway or rail transport.

SECTION 15: REGULATORY INFORMATION

Not available.

SECTION 16: OTHER INFORMATION

REFERENCES:

29 CFR Part 1910.1200 OSHA SDS Requirements.
OSHA Occupational Chemical Database
ANSI Z400.1, SDS Standard, 2004.
Suppliers Material Safety Data Sheets

DISCLAIMER:

The information provided in this document is believed to be accurate as of the date of its publication but is not warranted to be so. The Data is based on information provided by the manufacturers of the components of the product. It is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.