



# MATERIAL SAFETY DATA SHEET

**GUN BLUE**  
Revision 1 ♦ January 27, 2010

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## SECTION 1 • PRODUCT AND COMPANY IDENTIFICATION

Product Numbers 1702  
 Product Name Hoppe's Gun Blue  
 Synonyms None  
 Products Uses Professional do-it-yourself Gun Blue  
 Revision Number 1  
 Revision Date January 27, 2010  
 Print Date January 27, 2010

**24 hr Emergency  
Phone Number**

**800-255-3924**  
(CHEM-TEL)

MANUFACTURER INFORMATION		DISTRIBUTOR INFORMATION	
Company Name	Tri-Pac Inc.	Company Name	Bushnell
Address	17336 M-60 East Vandalia, MI 49095	Address	9200 Cody Overland Park, KS 66214
Phone Number	269-476-2303	Phone Number	800-423-3537
Fax Number	269-476-2302	Fax Number	913-752-3570

## SECTION 2 • HAZARDS IDENTIFICATION

**EMERGENCY  
OVERVIEW**

**CAUTION: CORROSIVE LIQUID. MAY CAUSE SEVERE BURNS TO BODY TISSUE. IRRITATING TO SKIN AND EYES. MAY BE FATAL IF SWALLOWED OR INHALED.**

OSHA Classification *This product is a "hazardous chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.*

European Classification *Xn, Xi, N, C  
R 20/22-35-36/38-50/53  
S 1/2-9-22-26-36/37/39-45-60-61*

WHMIS Classification *E*

HEALTH	* 2
FLAMMABILITY	0
PHYSICAL HAZARD	0



HEALTH HAZARDS		PHYSICAL HAZARDS			
Irritant <input checked="" type="checkbox"/>	Sensitizer <input type="checkbox"/>	Combustible <input type="checkbox"/>	Explosive <input type="checkbox"/>	Pyrophoric <input type="checkbox"/>	
Toxic <input type="checkbox"/>	Highly Toxic <input type="checkbox"/>	Flammable <input type="checkbox"/>	Oxidizer <input type="checkbox"/>	Water Reactive <input type="checkbox"/>	
Corrosive <input checked="" type="checkbox"/>	Carcinogenic <input type="checkbox"/>	Compressed Gas <input type="checkbox"/>	Organic Peroxide <input type="checkbox"/>	Unstable <input type="checkbox"/>	

### LABELING REQUIREMENTS

CANADA WHMIS	UNITED STATES	EUROPE & AUSTRALIA	GHS
	DANGER CORROSIVE		



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## POTENTIAL HEALTH EFFECTS AND SIGNS / SYMPTOMS OF EXPOSURE

Eye Contact	<i>CORROSIVE - Liquid contact may cause pain along with moderate eye irritation. Vapors are irritating and may cause damage to the eyes.</i>
Skin Contact	<i>CORROSIVE - Can cause redness, pain, and skin burns.</i>
Ingestion	<i>CORROSIVE - Swallowing can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea, and in severe cases death.</i>
Inhalation	<i>CORROSIVE - Inhalation of vapor can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract and in severe cases pulmonary edema, circulatory failure, and death.</i>
Effects of Chronic Exposure	<i>Not Available</i>
Medical Conditions Aggravated	<i>May aggravate personnel with pre-existing disorders associated with any of the Target Organs.</i>
Types of Hazards	<i>Corrosive</i>
Target Organs	<i>Eyes, Skin, Respiratory System</i>
Routes of Exposure	<i>Skin contact, skin absorption, eye contact, ingestion, inhalation</i>
Potential Environmental Effects	<i>See Section 12 for environmental effects</i>

## **SECTION 3 • COMPOSITION / INFORMATION ON INGREDIENTS**

ID	INGREDIENT	CAS NUMBER	EINECS	EU CLASSIFICATION	% WT
1	Water	007732-18-5	231-791-2	—	—
2	Selenium Dioxide	007446-08-4	231-194-7	—	1 - 5
3	Cupric Sulfate	007758-98-7	231-847-6	Xn, N; 22-36/38-50/53	1 - 5
4	Hydrochloric Acid	007647-01-0	231-595-7	T, C; 23-25	0.5 - 1.5

Risk Phrases	<i>See Section 15 for risk phrase text</i>
LD50 and LC50 Information	<i>See Section 11 for toxicological information</i>
Occupational Exposure Limits	<i>See Section 8 for OELs</i>

## **SECTION 4 • FIRST AID MEASURES**

Ingestion	<i>DO NOT INDUCE VOMITING! Have victim drink 2 to 8 ounces of water immediately. If vomiting occurs naturally, have victim rinse mouth with water again. Contact Poison Control Center immediately and seek medical care.</i>
Skin Contact	<i>Remove with soap and water, rinsing and repeating for 15 minutes. Use skin cream to counter any resulting dryness. Consult a physician if irritation continues. If large skin area is affected, remove contaminated clothing.</i>
Eye Contact	<i>Immediately flush with clear water for at least 15 minutes, including under the eyelids. Consult a doctor.</i>
Inhalation	<i>Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist or if unconscious.</i>
Notes to Physician	<i>Treat symptomatically.</i>
Antidotes	<i>No specific antidote.</i>

## **SECTION 5 • FIRE FIGHTING MEASURES**

Flash Point	<i>None</i>
Autoignition Temperature	<i>None</i>
Explosive Limits	<i>None</i>
Conditions of Flammability	<i>Heat, sparks, flame, red hot metal</i>
Extinguishing Media	<i>Water, CO2, dry chemical, or universal aqueous film forming foam</i>
Unsuitable Extinguishing Media	<i>Water jet</i>



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Hazardous Combustion Products	<i>Oxides of carbon (CO, CO<sub>2</sub>), smoke, and vapors. May react with metals or heat to release flammable hydrogen gas.</i>
Sensitivity to Mechanical Impact	<i>Probably not sensitive as material is stable.</i>
Sensitivity to Static Discharge	<i>Probably not sensitive to static discharge</i>
Special Equipment and Precautions	<i>Use water spray to cool fire exposed containers, as contents can rupture violently from heat developed pressure. Firemen should wear self-contained breathing apparatus.</i>
Special Explosion Hazards	<i>Not available</i>
Autoreactivity / Oxidizing Properties	<i>Not available</i>

## SECTION 6 • ACCIDENTAL RELEASE MEASURES

Personal Precautions	<i>Use personal protection recommended in Section 8.</i>
Environmental Precautions	<i>Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent.</i>
Containment Procedures	<i>Released content may be contained with oil/solvent absorbent pads, booms, and/or absorbents.</i>
Cleanup Procedures	<i>Avoid breathing vapors and ventilate area well. Remove sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.</i>
Other Information	<i>Consult the North American Emergency Response Guidebook or similar resources providing emergency response information for dealing with accidents, spills, leaks, and/or fires involving dangerous goods.</i>
Prohibited Materials	<i>Combustible absorbent material such as sawdust, use of equipment that may cause sparking.</i>
Reporting Requirements	<i>Report releases that reach surface water or groundwater in any amount. Spills, leaks, and overfills from a regulated underground storage tank should also be reported. Reportable quantities for spills onto the ground depend on site conditions, such as the type of soil and the type of material spilled, and Federal and local agencies often have different reportable quantities.</i>

## SECTION 7 • HANDLING AND STORAGE

Precautions for Safe Handling / Use	<i>KEEP OUT OF THE REACH OF CHILDREN. When diluting, always add this material to water; never add water to a material containing an acid. Containers of this material may be hazardous when empty since they retain product residues; observe all warnings and precautions listed for the product.</i>
Storage Requirements / Conditions	<i>Store in a cool, dry, ventilated storage area. Protect from physical damage. Keep out of direct sunlight and away from heat and incompatible materials. Do not wash out container and use it for other purposes. Protect from freezing.</i>
Special Packaging Materials	<i>Not applicable.</i>

## SECTION 8 • EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational Exposure Limits

ID	UNITED STATES OSHA PEL	UNITED STATES NIOSH REL	UNITED STATES NIOSH IDLH	UNITED STATES ACGIH TLV	AUSTRALIA TWA	GERMANY MAK	JAPAN OEL
1	None Established	None Established	None Established	None Established	None Established	None Established	None Established
2	0.2 mg/m <sup>3</sup>	None Established	None Established	None Established	0.1 ppm	None Established	0.1 ppm
3	1 mg/m <sup>3</sup>	None Established	None Established	1 mg/m <sup>3</sup>	None Established	None Established	None Established
4	5 ppm	5 ppm	50 ppm	2 ppm	5 ppm	5 ppm	5 ppm

ID	CANADA ALBERTA OEL	CANADA BC TWA	CANADA ONTARIO TWA EV	CANADA QUEBEC TWA	MEXICO MPPEL-PTA	UNITED KINGDOM WEL	UNITED STATES AIHA WEEL
1	None Established	None Established	None Established	None Established	None Established	None Established	None Established
2	0.2 ppm	0.1 ppm	0.2 ppm	0.2 ppm	None Established	0.1 ppm	None Established
3	None Established	None Established	None Established	None Established	None Established	None Established	None Established
4	5 ppm	2 ppm	2 ppm	5 ppm	5 ppm	1 ppm	None Established

Engineering Measures	<i>Use with adequate ventilation. General ventilation (typically 10 air changes per hour) should be used. Rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system may be necessary to control air contamination below that of the lowest OEL from the table above.</i>
Biological Exposure Indices	<i>None Established</i>



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**General Hygiene Considerations**      *Avoid breathing vapors and contact with the skin and eyes. Always replace overcap when not in use. Keep out the reach of children. Wash hands after use.*

**Thermal Hazards**      *This product does not present a thermal hazard.*

## PERSONAL PROTECTIVE EQUIPMENT



**Respiratory Protection**      *An approved respirator with an organic vapor cartridge may be permissible under certain circumstances where airborne concentrations are expected to exceed occupational exposure limits. If respirators are needed, in the United States compliance with OSHA standard 29 CFR 1910.134 is necessary.*

**Skin Protection**      *For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing impervious to the ingredients listed in Section 2.*

**Eye/Face Protection**      *Safety glasses with side shields are recommended as a minimum for any type of chemical handling.*

**Other Protective Equipment**      *Safety showers and eye-wash stations should be available in the near where the material will be used.*

## **SECTION 9 • PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point	> 181 °F (83.0 °C)	Melting / Freezing Point	> -51 °F (-46.2 °C)
Flash Point	None	Autoignition Temperature, Liquid	None
Explosive Limits	None	Decomposition Temperature	Not Available
Flammability	NFPA Class III Liquid	Density (H <sub>2</sub> O = 1)	1.029 g/cc
Molecular Weight	Not Available	Weight	6.572 lbs/gal
Vapor Pressure	18.27 mm Hg	pH	2
Vapor Density	1.27 g/cc Maximum	Evaporation Rate (BuAC = 1)	Not Available
Physical State	Liquid	Partition Coefficient	Not Available
Viscosity	Not Available	Refractive Index	Not Available
Odor Threshold	Not Available	Heat of Combustion	Not Available
Odor	Pungent	Water Solubility	Complete
Appearance / Color	Clear blue		
Percent Volatile	96% Wt (97% Vol) Max	VOC Content	None
Percent VOC	None	HAP Content	None
Solids Content	None	Maximum Incremental Reactivity	0.000 g O <sub>3</sub> /g

## **SECTION 10 • STABILITY AND REACTIVITY**

**Stability**      *Stable*

**Physical Hazards**      *Flammable*

**Conditions to Avoid**      *Not Available*

**Hazard Polymerization**      *Not expected to occur*

**Material Incompatibility**      *Amines, alkalis, hydroxides*

**Conditions of Reactivity**      *Heat, sparks, flame, red hot metal*

**Decomposition Products**      *When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to product heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.*



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## SECTION 11 • TOXICOLOGICAL INFORMATION

Irritancy of Product *The following ingredients are eye irritants: Selenium Dioxide, Cupric Sulfate. The following ingredients are skin irritants: Selenium Dioxide, Cupric Sulfate.*

Sensitization to Product *None of the ingredients are considered known or suspected sensitizers.*

Carcinogen Data *None of the ingredients are considered known or suspected carcinogens.*

Reproductive Toxicity *None of the ingredients are considered known or suspected reproductive toxicants.*

Teratogenicity *None of the ingredients are considered known or suspected teratogens.*

Mutagenicity *None of the ingredients are considered known or suspected mutagens.*

Synergistic Products *No known synergistic properties.*

### LD50 and LC50 Information

ID	ORAL LD50	DERMAL LD50	INHALATION LC50
1	> 89000 mg/kg, rat	Not Available	Not Available
2	68.1 mg/kg, rat	4 mg/kg, rabbit	Not Available
3	300 mg/kg, rat	1000 mg/kg, rabbit	Not Available
4	900 mg/kg, rabbit	1449 mg/kg, mouse	3124 ppm /1hr, rat

## SECTION 12 • ECOLOGICAL INFORMATION

Mobility *Not Available*

Persistence *Not Available*

Degradability *Not Available*

Bioaccumulation *Not Available*

Other Ecologic Data *Do not allow to enter waters, waste water, or soil. This product is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.*

Effects on the Ozone Layer *This product does not contain any ozone depleting ingredients.*

### Ecotoxicity

ID	FISH	INVERTEBRATES	AQUATIC PLANTS	MICROORGANISMS
1	Not Available	Not Available	Not Available	Not Available
2	Not Available	Not Available	Not Available	Not Available
3	LC50: 0.75 mg/L /96 hr	Not Available	Not Available	Not Available
4	LC50: 282 mg/L /96 hr	EC50: 56 mg/L /72 hr	Not Available	Not Available

## SECTION 13 • DISPOSAL CONSIDERATIONS



Waste Disposal *Hazard characteristics and regulatory waste stream classification can change with product use and location. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition. All waste material must be disposed of in compliance with the respective.*

Waste Disposal of Packaging *Consult with your local landfill to determine if empty small containers can be disposed of regular trash pickup. For containers not suitable for landfill, a licensed reconditioner should be used.*

Landfill Precautions *Not Available*

Incineration Precautions *Not Available*

## SECTION 14 • TRANSPORTATION INFORMATION

DOT SHIPPING INFORMATION (United States)		ICAO/IATA SHIPPING INFORMATION (International Air)	
	PROPER SHIPPING NAME: ... Consumer Commodity HAZARD CLASS: ..... ORM-D PACKING GROUP: ..... - UN or ID NUMBER: ..... - NAERG GUIDE NUMBER: ..... 171		PROPER SHIPPING NAME: ... Consumer Commodity HAZARD CLASS: ..... 9 PACKAGING GROUP: ..... None UN or ID NUMBER: ..... ID 8000



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	<b>IMDG SHIPPING INFORMATION (International Ocean)</b> PROPER SHIPPING NAME: ... Hydrochloric Acid Solution, Limited Quantity CLASS: ... 8 PACKAGING GROUP: ... III SUBSIDIARY RISK(S): ... - UN or ID NUMBER: ... UN 1789 PACKING INSTRUCTIONS: ... P001, LP01 EmS NO.: ... F-A, S-B STOWAGE: ... Category C		<b>ADR SHIPPING INFORMATION (European Union)</b> PROPER SHIPPING NAME: ... Hydrochloric Acid Solution, Limited Quantity ADR CLASS: ... 8 PACKAGING GROUP: ... III UN or ID NUMBER: ... UN 1789 CLASSIFICATION CODE: ... C1 HAZARD IDENTIFICATION NO: 80
	<b>TDG SHIPPING INFORMATION (Canada)</b> PROPER SHIPPING NAME: ... Hydrochloric Acid Solution, Limited Quantity HAZARD CLASS: ... 3 PACKAGING GROUP: ... III UN or ID NUMBER: ... UN 1789	<b>NMFC DESCRIPTION (United States)</b> ITEM DESCRIPTION: Compounds Cleaning ITEM NUMBER: 48580 Sub 3 CLASS: 55	

Special Transport Precautions *Not Available*

## SECTION 15 • REGULATORY INFORMATION

### United States - Federal

ID	TSCA INVENTORY	SARA 302 EHS	RCRA	CERCLA	SARA 313	FIRE	REACTIVITY	SARA 311/312 ACUTE	CHRONIC	PRESSURE	CLEAN AIR ACT	CLEAN WATER ACT
1	✓	—	—	—	—	—	—	—	—	—	—	—
2	✓	—	U204	10#	—	—	—	✓	✓	—	—	10#
3	✓	—	—	10#	—	—	—	✓	✓	—	—	10# PP
4	✓	—	—	5000#	1 %	—	—	✓	✓	—	X	5000#

### United States - States

ID	CALIFORNIA	DELAWARE	FLORIDA	MASSACHUSETTS	PENNSYLVANIA	MINNESOTA	NEW JERSEY	NEW YORK	WASHINGTON
1	—	—	—	—	—	—	—	—	—
2	—	✓	—	2,4 F8 F9	E	—	—	✓	—
3	—	✓	—	F8 F9	E	—	—	✓	—
4	—	✓	✓	2,4,5 *E* F6 F8 F9	E	AO	✓	✓	✓

### Canada

ID	WHMIS CATEGORIES										CHEMICAL LISTS		
	A	B	C	D1A	D1B	D2A	D2B	D3	E	DSL	NDSL	NPRI	CWC
1	—	—	—	—	—	—	—	—	—	✓	—	—	—
2	—	—	—	—	—	—	—	—	✓	✓	—	—	—
3	—	—	—	—	—	—	—	—	—	✓	—	—	—
4	—	—	—	✓	—	—	—	—	✓	✓	—	1A	—

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.**

### European Union

CODE	RISK PHRASES
R 20/23	Harmful if inhaled and if swallowed
R 35	Causes severe burns
R 36/38	Irritating to eyes and skin
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CODE	SAFETY PHRASES
S 1/2	Keep locked up and out of the reach of children
S 9	Keep container in a well ventilated place
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S 45	In case of accident or if you feel unwell, seek medical advice immediately
S 60	This material and its container must be disposed of as hazardous waste
S 61	Avoid release to the environment



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RoHS Compliance



*This product is RoHS compliant according to the definitions and restrictions given by Directive 2002/95/EC and The Council of January 27, 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.*

Australia

Poisons Schedule Number

*None of the ingredients are present at or above a concentration necessary for allocation of a Poisons Schedule Number.*

Chemical Inventory Status

*All of the ingredients are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt.*

## SECTION 16 ● OTHER INFORMATION

Disclaimer of Liability

*The information contained herein is based upon data provided to us by our suppliers, and reflects our best judgement. However, no warranty of merchantability, fitness for any use, or any other warranty or guarantee is expressed or implied regarding the accuracy of such data, or the results to be obtained from use thereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of such application. This information is furnished upon the condition that the persons receiving it shall make their own determinations of the suitability of the material for any particular use. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist.*

Revision History

*Revision 1, 01/27/2010, Original*

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