MATERIAL SAFETY DATA SHEET
VORTEX BLACK POWDER BORE CLEANER

Hoffman & Wright, L.L.C.
706 Woods Pike
Pleasureville, Kentucky 40057
Telephone (888) 297-2399

For chemical emergencies - spill, leak, fire, exposure, or accident, call Hoffman & Wright 1-888-297-2399 - 24 hours

Hoffman & Wright. L.L.C. urges the customer receiving this Material Safety Data Sheet (MSDS) to study it carefully to become aware of hazzards, if any, of the product involved. In the interest of safety you should: (1) Notify your employees, agents, contractors of the information on this sheet, (2) Furnish a copy to your customers to inform their employees and customers as well.

Section I - Identification

Product Name: Vortex Black Powder Bore Cleaner
Synonyms: Black powder bore cleaner
Bore cleaner
Chemical family: Alcohol, Hydrogen Peroxide, Vegetable oil sufficient , bittering agent

Section II - Ingredients

Composition	Cas #	Nominals	PEL/TLV	Hazzard
Isopropyl Alcohol	67-63-0	30%	400/400 ppm	Flammable
Hydrogen Peroxide	7722-84-1	2.5%	1 ppm	Irritant
Vegetable oil	1310-58-3	30%	N/A	
Potassium Oleate	143-18-0	18%	N/A	
Denatonium Benzoate	N/A	1%	Trace	
Benzyldiethyl	N/A	1%	Trace	
Purified Water	7732-18-5	17.5%	N/A	

Section III - Health Information

Inhalation: Exposure to over 400 ppm may cause headache, nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, possible unconsciousness or asphyxiation.
Ingestion: Can cause nausea, vomiting, diarrhea, and gastrointestinal irritation.
Eye contact: Liquid or vapor may cause irritation, blurred vision, and redness.
Skin contact: May cause irritation, defatting of skin, and dermatitis.

Section IV - Occupational exposure limits

PEL (OSHA permissible exposure limits): Mixture - See Section II
TLV(ACGIH Threshold limit value): Mixture - See Section II

Section V - Emergency First Aid procedure

Swallowing: If victim is conscious and able to swallow, have victim drink water or milk to dilute. Never give anything by mouth if victim is unconscious or having convulsions. CALL A PHYSICIAN IMMEDIATELY. Induce vomiting only if directed by a physician or poison control center.
Inhalation: Exposure to over 400 ppm may cause headache, nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, possible unconsciousness, and even asphyxiation.
Eye contact: Immediately flush eyes with plenty of cool water. Eyes should be flushed for at least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY.

Section VI - Physical Data

Boiling point:	180 F.
Melting point:	-50 F.
Vapor pressure	33 mm Hg @ 68 F.
Vapor density:	1.0
Solubility in water:	85%
Appearance and color:	Clear & colorless
Odor:	Slight soapy / alcohol smell

Section VII - Fire and Explosion Hazzards

FLASH POINT: 74 F ASTM D-56 (Tag Closed Cup)

Section VIII - Reactivity

Stability:	Generally stable.
Hazardous Polymerization:	Not likely.
Conditions and materials to avoid:	Contact with a wide range of strong oxidizing agents may react violently.

Section IX - Employee protection

Control measures:	Handle in the presence of adequate ventilation.
Respiratory protection:	Where exposure is likely to exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminant in air and in accordance with OSHA (29 CFR 1910.134).
Protective clothing:	Wear gloves and protective clothing which are impervious to the product for the duration of the anticipated exposure if there is potential for prolonged or repeated skin contact.
Eye protection:	Wear safety glasses meeting the specifications of ANSI Standard Z87.1 where no contact with the eye is anticipated. Chemical safety goggles meeting the specifications to ANSI Standard Z87.1 should be worn whenever there is the possibility of splashing or other contact with the eyes.

Section X - Environmental Protection

Environmental precautions:	Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill respone plan should be developed and implemented.
Spill or leak procedures:	Wear appropriate respiratory protection and protective clothing as described in Section IX. Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations.
Waste Disposal:	All recovered material should be packaged, labeled, transported, and disposed of, or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices.

Section XI - Regulatory Controls

DEPARTMENT OF TRANSPORTATION (DOT):

DOT CLASSIFICATION:	3 (Flammable Liquid)
DOT PROPER SHIPPING NAME:	Flammable Liquid N.O.S. (Isopropyl Alcohol)
SMALL PKG SHIPPED DOMESTICALLY:	Consumer Commodity ORM-D
OTHER DOT INFORMATION:	Identification No. UN1993 Emergency Response Guide No. 27 P.G. III

Section XII - precautions: Handing, Storage and Usage

Protect container against physical damage. Do not expose to direct sunlight. Store in a cool, dry area. Do not transfer to clear glass or plastic container.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must conduct testing and/or make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.