

East Building, PHH – 32

1200 New Jersey Avenue, Southeast

Washington, D.C. 20590

Pipeline and Hazardous
Materials Safety Administration

The US Department of Transportation Competent Authority for the United States

# CLASSIFICATION OF EXPLOSIVES FIRST REVISION

Based upon a request by Baker Hughes, 6192 AR 203 HWY, Hampton, AR 71744, United States the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR). A copy of your application, all supporting documentation and a copy of this approval must be retained and made available to DOT upon request.

### **U.N. PROPER SHIPPING NAME AND NUMBER:**

Cartridges, power device, UN0276

U.N. CLASSIFICATION CODE: 1.4C

REFERENCE NUMBER PRODUCT DESIGNATION/PART NUMBER

EX2010121109 Slow Set Power Charges: P/N's H437660020,

H437660010, H437660700, H437665225 and

H437660550

**NOTES**: None

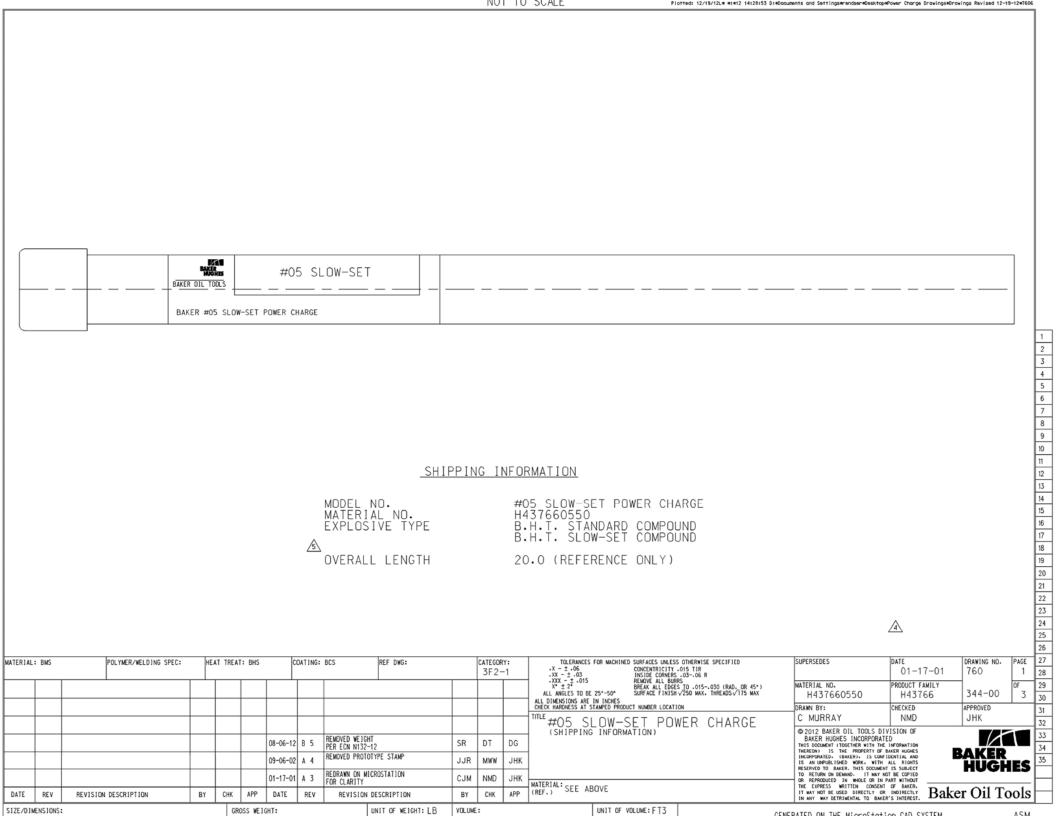
**DATED:** 07/07/2011

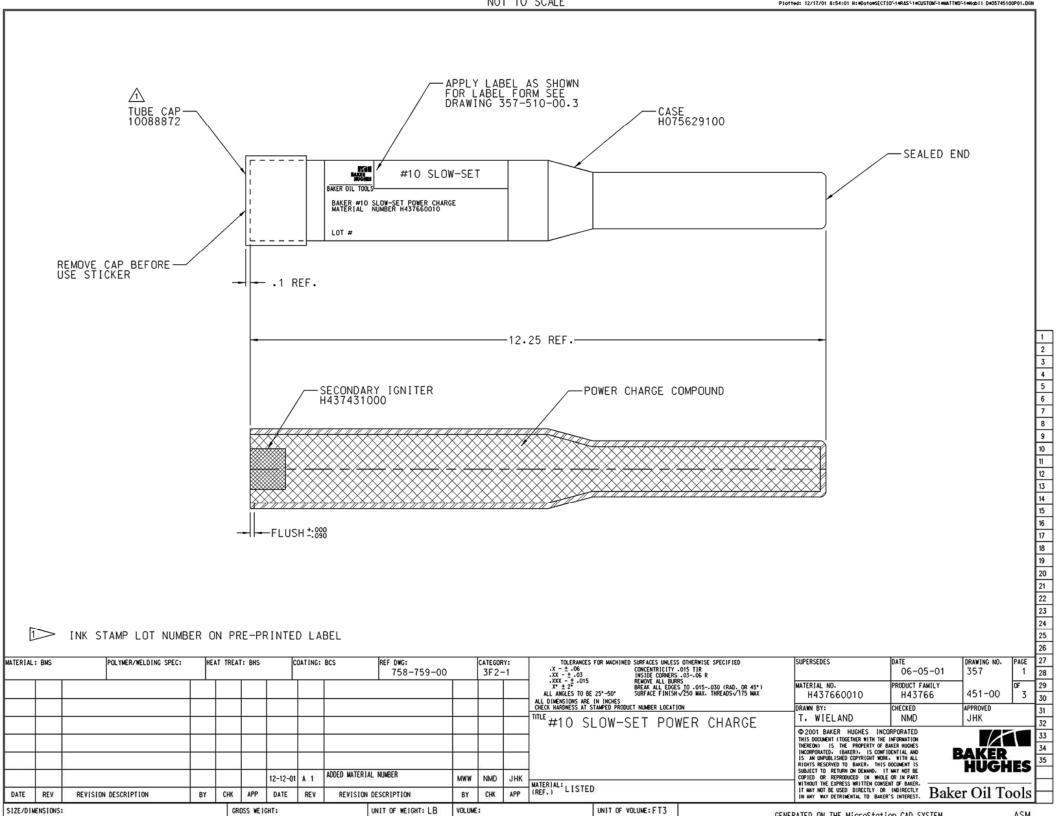
For Dr. Magdy El-Sibaie

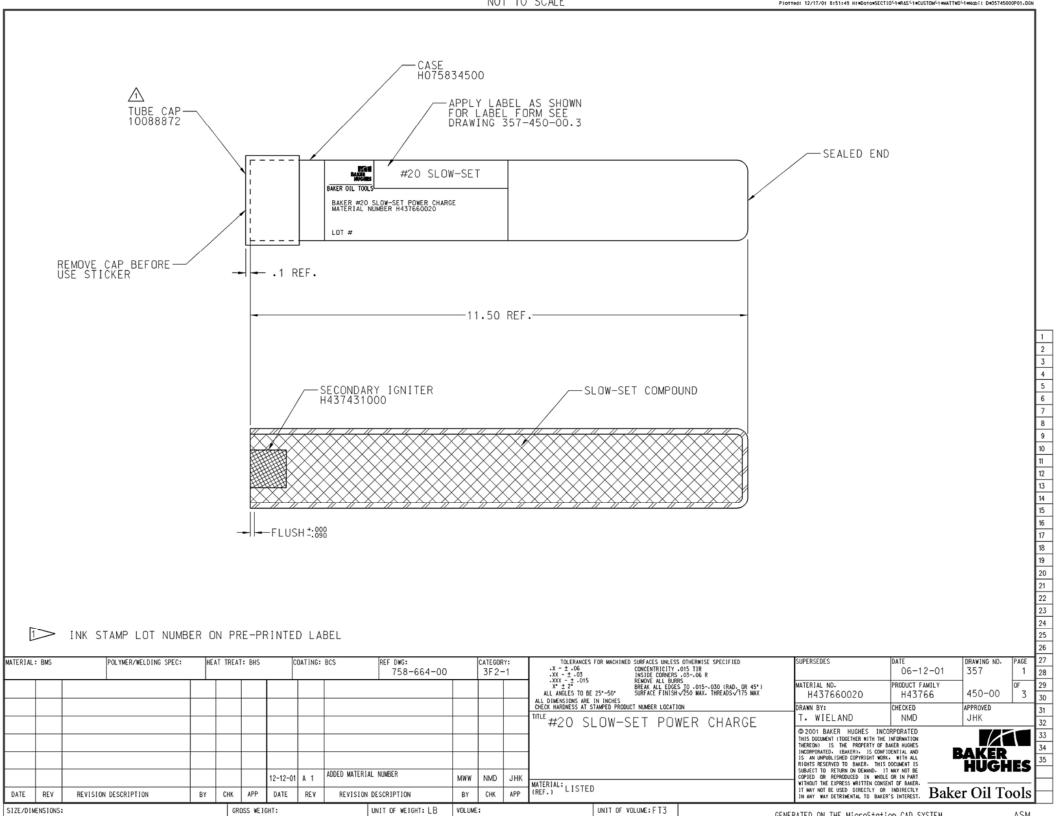
Associate Administrator for Hazardous Materials Safety

Harfreit K. Singh

Tracking No: 2011020707 Page 1 of 1









Test Report: N00102634-1
Date of Report: 24 February 2011
Date of Testing: 16 February 2011
Purchase Order Number: 4592

# DEPARTMENT OF TRANSPORTATION PERFORMANCE ORIENTED PACKAGE TESTING CERTIFICATION

Performed by: National Technical Systems

Highland Industrial Park Building K-5 Camden, AR 71701 870-574-0031

Testing Performed for: BHT Products

Route 1 Box 196 Hampton, AR 71744 (870)798-2486

Periodic Retesting of a Single Walled UN 4G Fiberboard Box



Approved by:	3 June 63	Date:_February 2011_
	Eric Loucks, Manager Quality Assurance/Safety	



Test Report: N004043-1
Date of Report: 21 June 2010
Date of Testing: 19 June 2010
Purchase Order Number: 4250

# DEPARTMENT OF TRANSPORTATION PERFORMANCE ORIENTED PACKAGE TESTING CERTIFICATION

Performed by: National Technical Systems

Highland Industrial Park Building K-5 Camden, AR 71701 870-574-1335

Testing Performed for; BHT PRODUCTS

Rt 1 Box 196 Hampton, AR 71744 (870) 798-2486

Design Verification of a Single Walled UN 4G Fiberboard Box

u n 4G/Y9.5/S/10 USA/+BQ0014

Approved by: _	Eric Loucks, Manager Quality Assurance/Safety	_ Date:_	21 June 201	0
Approved by: _	Keith Dixon, Program Engineer	_ Date:	21 June	_20/0





Explosives Notified Body, Health & Safety Laboratory, Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom Tel.: +44 (0)1298 28150 Fax.: +44 (0)1298 28180

# EC TYPE EXAMINATION CERTIFICATE

NOTIFIED BODY NO: 0519 CERTIFICATE NO: ENB/P/081/04 Issue 1

- 1. Product Type: Propellant.
- Product Name: IGNITERS AND POWER CHARGES as listed in Annex 1 to this certificate.
- Manufacturer's Name and Address: Baker Oil Tools, BHT Products, Rt. 1 Box 196, Hampton, Arkansas 71744, USA.
- Applicant's Name and Address: Baker Oil Tools, BHT Products, Rt. 1 Box 196, Hampton, Arkansas 71744, USA.
- Attachments to this Certificate: Annex 1: products covered by this certificate; Annex 2: list of technical documents examined.

Being a notified body in accordance with the GB Statutory Instrument No 2714 (1993) and Directive 93/15/EEC of 5 April 1993 on the harmonization of the provisions relating to the placing on the market and supervision of explosives for civil uses, the Explosives Notified Body certifies that the above type of product has been examined using Module B of the system for attesting conformity and has been found to conform with the manufacturer's specifications for the type and with the relevant requirements of the Statutory Instrument and the Directive.

Dr R K Wharton

Head, GB Explosives Notified Body

R. h. Whatton

9 February 2004



# ANNEX 1 TO EC TYPE EXAMINATION CERTIFICATE ENB/P/081/04 Issue 1

### Igniters

H437442200, BP-3S Primary Igniter H437444200, BP-4S Primary Igniter H437431000, Secondary Igniter H437461000, E-12 Igniter

# **Power Charges**

H437665225, #05 Low Temp Slow Set Power Charge H437660700, #07 Slow Set Power Charge H437660010, #10 Slow Set Power Charge H437660020, #20 Slow Set Power Charge H437660550, #05 Slow Set Power Charge

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured by: BHT PRODUCTS

6192 AR Hwy 203

To the specifications of: BAKER OIL TOOLS
HOUSTON, TEXAS

HAMPTON, ARKANSAS 71744

870-798-2486

Emergency Phone Number: Chemtrec: 800-424-9300

Material Name: #05, #10 & #20 Slow Set Power Charge

Material Numbers: H437665225, H437660010, H437660550, H437661000, H437660020, H437662300

Synonyms: None

Formula: Trade Secret

Shelf Life: 5 Years from the date of manufacture. Manufacture date is the first 6 digits of the lot number.

(example: 010211XXXX 01-Month, 02-Date, 11- Year)

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Concentration (%)
Barium Chromate	10294-40-3	Min .8 Max 3.2
Trade Secret Ingredients	Not Applicable	Min 96.8 Max 99.2

#### 3. HAZARDS IDENTIFICATION

Emergency Overview: Danger! Contains Barium Chromate. Human Carcinogen.

**Potential Health Effects**: Can cause cancer. Signs of exposure include vomiting, violent diarrhea, abdominal pain, difficulty in breathing, slow pulse and irregular heart beat. Possible liver damage. Chronic overexposure may cause weakness, general depression, headache and mental impairment.

**Eve**: Irritant, may cause burns.

**Skin**: Irritant, may cause burns.

**Ingestion:** Poisonous, ingestion may affect the blood, central nervous system, liver and kidneys.

**Inhalation**: Component is an irritant to mucous membranes and may cause bleeding and ulceration of nasal septum, sore throat, and coughing.

**Medical Conditions Aggravated by Exposure**: Large doses may cause cardiac and respiratory failure and hemorrhages in the gastrointestinal tract and kidneys. Skin rash may also become aggravated upon exposure.

#### 4. FIRST AID MEASURES

**First Aid Procedures**: Remove victim from exposure area. Remove contaminated clothing and shoes. Wash affected area with soap and water. Obtain medical attention.

Eye: Flush eyes with running water for 15 minutes. Contact physician.

**Skin**: Flush affected area with water, wash thoroughly with soap and water.

**Ingestion:** Induce vomiting. Contact physician.

**Inhalation**: Remove to fresh air. Have victim blow nose to remove substance, but discourage sniffling. Administer oxygen if breathing is difficult. Contact physician.

**Note to physicians**: Remove chromates by gastric lavage.

#### 5. FIRE FIGHTING MEASURES

Flash Point: Not applicable.	Method: Flood with water.	
<b>Autoignition Temperature</b> : > 400°F		

Fla	Flammability Limits in Air: Contains oxidizer and fuel, does not require air for combustion.		
	Lower Explosive Limit (LEL): Not Upper Explosive Limit (UEL): Not		
	applicable, will not detonate.	applicable, will not detonate.	

NFPA Classification	
Health: Not Rated	Reactivity: Not Rated
Fire: Not Rated	Specific Hazard: Not Rated

Extinguishing Media: Flood with water to cool fire and hinder propagation.			
Flammable Properties: Contains oxidizer and	Firefighting Instructions: Use unmanned		
fuel. Does not require air for combustion.	water hose and withdraw from area until fire is		
	out. If manned entrance is required, wear full		
	protective clothing and NIOSH approved self-		
	contained breathing apparatus with full		
	facepiece operated in the pressure demand or		
	other positive pressure mode.		
Hazardous Combustion: Combustion will	Unusual Fire and Explosion Hazards:		
produce toxic fumes (fumes may be	Combustion produces large volumes of gas.		
carcinogenic).	Combustion within a sealed container may		
	result in violent rupture.		

#### 6. ACCIDENTAL RELEASE MEASURES

**Spill Information**: Evacuate spill area until dust settles or appropriate PPE can be obtained. Do not touch or walk through spilled material. Keep ignition sources and flammable materials away from spilled material. Do not smoke. Keep material dry. If wet, absorb liquid with sand or other non-combustible material. Sweep or scoop up material into a clean, dry container and cover loosely. Move container to hazardous waste storage area and label properly. Do not use water to clean up spills or porous or wood surfaces (surface may become impregnated with material).

#### 7. HANDLING AND STORAGE

**Handling**: Keep away from heat, ignition sources and flammable materials. No smoking, open sparks or open flame in area.

**Storage**: Store in dry area away from heat, ignition sources and flammable materials. Keep in closed, original shipping containers or approved magazine.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** If handled in a confined area, insure adequate ventilation to prevent inhalation of dust.

#### MATERIAL SAFETY DATA SHEET

**Personal Protective Equipment**: PPE not required for normal use. Use when containers are damaged or excessive dust is present.

**Respiratory**: Proper respiratory protection should be determined by adequately trained personnel, based on the contaminants, degree of potential exposure and published respiratory protection factors. The equipment should be available for nonroutine and emergency use. OSHA protocol for respirator use and fit-testing should be followed.

**Skin**: Wear general purpose protective clothing and gloves to prevent contact.

**Eye**: Dust resistant safety goggles or glasses. Have eye-wash station available within immediate work area for emergency use.

EXPOSURE GUIDELINES		
RECOMMENDED EXPOSURE LIMIT		
COMPOUND	TWA	
Soluble Barium compounds	$0.5 \text{ mg/m}^3$	
$mg/m^3 = milligrams per cubic meter$		

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight: No applicable information	<b>pH</b> : No applicable information available.	
available.		
<b>Boiling Point</b> : No applicable information	Specific Gravity: Not applicable	
available		
Melting Point: No applicable information	Vapor Pressure: Negligible	
available.		
<b>Vapor Density</b> (air = 1): No applicable	Percent Volatile: No applicable information	
information available.	available.	
Solubility in Water: Insoluble	<b>Physical State</b> : Rubber solid with gray to dark	
	green layer of pressed powder.	
Appearance and Odor: Gray to green layer	<b>Density</b> : Not applicable	
over gray material. Slight solvent odor. All		
enclosed in a black phenolic case.		

# 10. STABILITY AND REACTIVITY

Stability: Product contains oxidizing and	Hazardous Polymerization: Will not occur.	
reducing agents and is potentially unstable.		
Incompatibility: Ethanol	Hazardous Reactions/Decomposition:	
Ignites at high temperatures.		
Conditions to Avoid: Extreme heat, generation of dust.		

#### 11. TOXICOLOGICAL INFORMATION

<b>Target Organs</b> : Lungs, CNS, liver, kidneys and blood		<b>Primary Routes of Entry</b> : Inhalation or ingestion.	
Product listed as a Carcinogen or Potential Carcinogen by:			
NTP: No	IARC: Yes	OSHA: No	Other: No

#### MATERIAL SAFETY DATA SHEET

#### **Component Toxicity**

Considered a poison and a human carcinogen. Moderately toxic by ingestion and intraperitoneal routes. When heated to decomposition it emits toxic Nitrogen Oxide fumes.

#### 12. ECOLOGICAL INFORMATION

No applicable information available.

#### 13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material. Observe federal, state and local laws. Contaminated residue, combustion by-products and sweepings are considered hazardous waste.,

RCRA Hazard Class: No applicable information available.

#### 14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Cartridges, Power Device

Hazard Class: 1.4C Explosive Identification Number: UN0276

Packing Group: II ECCN: 1C992

#### 15. REGULATORY INFORMATION

**TSCA** Components of this product are listed on the TSCA Inventory.

**CERCLA** No applicable information available.

#### SARA TITLE III

**Reportable Quantity:** (The reportable quantity for mixtures is based on the component with the lowest reportable quantity and its percentage in the product.)

100,000 lbs.

Section 302/304 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: Barium Compounds Min .8 % Max 3.2%

# 16. OTHER INFORMATION

This product is designed for use exclusively in Baker Oil Tools equipment. It must be handled only in strict compliance with published Baker Oil Tools procedures. Use of this product in other equipment or in any manner inconsistent with Baker Oil Tools published procedures may result in damage to property or personal injury. BAKER OIL TOOLS EXPRESSLY LIMITS ITS WARRANTY AND ALL OTHER RESPONSIBILITY FOR ITS PRODUCT TO USES AND FOR HANDLING CONSISTENT WITH BAKER OIL TOOLS PUBLISHED PROCEDURES.

#### MATERIAL SAFETY DATA SHEET

#### **DISCLAIMER**

The information, recommendations and suggestions herein were compiled from reference material and other sources believed to be reliable. However, the MSDS's accuracy or completeness is not guaranteed by BHT Products, or its affiliates, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, no warranties of merchantability or fitness for a particular purpose are expressed or implied. This MSDS is not intended as a license to operate under, or recommendation to infringe on, any patents. Appropriate warning and safe handling procedures should be provided to handlers and users.

Prepared By: BHT Products, 6192 AR Hwy 203, Hampton, AR 71744 from information furnished by Eagle Environmental Health, Inc., 4151 Southwest Freeway, Suite 410, Houston, Texas 77027

November 13, 2001

March 6, 2003 – updated June 2006 – Reviewed Dec 2008 – Reviewed Dec 2009- Updated Aug 2010 – Updated (Removed 07 slow set wording) January 11, 2011