



A Division of HAMMOND GROUP, INC.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY: HAMMOND EXPANDERS
6544 Osborn Avenue
Hammond, IN 46320

PRODUCT NAME: Negative Expander Automotive Grade

Phone: 219-989-4060 (US Central) M - F 8:00am - 5:00pm

Emergency Phone: 219-845-0031

Chemtrec: 1-800-424-9300

Product Use: Additive use in the manufacturing of lead acid batteries for the automotive industry.

2. COMPOSITION/INFORMATION ON INGREDIENTS

This MSDS applies to the following product names: HE-DR-4-A, HE-DR-4-P, HE-GLOBE, HE-GLOBE-H, HE-GLOBE-HT-2V, HE-EXE-23, HE-ACM-36, HE-DR-50, HE-PORITE-90, HE-PORITE-90-V, HE-152, HE-455S, HE-455TBP, HE-455PTTV, HE-500, HE-500-H, HE-500 S, HE-500-V, HE-501, HE-501-E, HE-501-S, HE-510, HE-510-H, HE-510-V, HE-515, HE-520-V, HE-525, HE-555-A, HE-555-P, HE-631-A, HE-631-H, HE-631-A/H, HE-631-P, HE-631-V, HE-1004N, HE-1007, HE-3221, HE-3221-V, HE-4032, HE-4115, HE-4215, HE-4621, HE-4640, HE-5315, HE-5350, HE-5350-H, HE-C-6-MAXLIFE, HE-4640-V, HE-SPORTSTART-K28, HE-BAN101, HE-BAN102, HEM-LI03, HE-UltraStart

Hazardous Components	% Composition	ACGIH TLV:	ACGIH STEL:	OSHA PEL:	OSHA STEL:	TWA/STEL Units are in:
Barium Sulfate 7727-43-7	70-90	10	NE	15*, 5**	NE	mg/m ³
Carbon Black 1333-86-4	10-40	3.5	NE	3.5	NE	mg/m ³

EXPOSURE LIMIT STATEMENT

*Total dust, ** respirable dust

HMIS

HEALTH:	1
FLAMMABILITY:	1
REACTIVITY:	0
PERSONAL PROTECTION:	*

* Recommended personal protective measures are identified in Section 8.0 of this document.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

This material is a black powder, with a vanilla or wood pulp like odor. This material is not considered a flammable material, however, it may emit oxides of carbon, sulfur, barium, and sodium if involved in a fire. The carbon black and lignin components of this product are considered combustible materials and dusts containing these materials at sufficient concentrations may form explosive mixtures with air if in the presence of a significant energy source (> 1kJ). Excessive airborne concentrations may obscure vision and present an inhalation and ingestion hazard.

POTENTIAL ACUTE HEALTH EFFECTS:

EYE CONTACT:

No significant irritation expected other than possible mechanical irritation.

SKIN CONTACT:

Prolonged exposure not likely to cause significant skin irritation. Skin absorption is unlikely due to physical properties. However, the carbon black component of this material may produce irritation, follicular blackheads, and kurtosis.

INGESTION:

No adverse effects expected. Ingestion is not anticipated to be a relevant route of occupational exposure to this product.

INHALATION:

Inhalation of dust concentrations above the occupational 8-hour TWA may cause upper respiratory tract irritation and discomfort. The barium sulfate component of this material is insoluble in water and is deliberately used as a contrast medium in bronchography. As a result, it is inert in the human lung and is not anticipated to create a toxic response. Inhalation of the carbon black component of this product may cause sneezing, coughing, chest pain, and headache.

POTENTIAL CHRONIC HEALTH EFFECTS:

Prolonged and repeated inhalation of the barium sulfate component of this material may cause the benign pneumoconiosis called baritosis. Epidemiological studies conducted on chronic exposure to carbon black have shown conflicting information. Studies of workers in the carbon black producing industries of North America and Western Europe show no evidence of adverse health effects due to occupational exposure to carbon black. The IARC evaluation in Monograph 65 concluded that "there is sufficient evidence in experimental evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "carbon black is possibly carcinogenic to humans (Group 2B)".

4. FIRST AID MEASURES

EYES:

Do not let victim rub eyes. Immediately flush with large quantities of water for at least 15 minutes. Seek medical attention if any irritation persists.

SKIN:

Wash exposed area with soap and water. Seek medical attention if irritation persists.

INHALATION:

Remove victim to fresh air. If conscious, have victim clear nasal passages. If breathing is stopped, give artificial respiration. Get medical attention.

INGESTION:

If swallowed and the person is conscious, drink water and induce vomiting. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT (° F) Not applicable.

OSHA FLAMMABILITY CLASSIFICATION: Unknown.

EXTINGUISHING MEDIA: This material is not flammable and will not react with commercially available extinguishing media. The carbon black and lignin components of this material are combustible and can be ignited by heat, sparks, or flame. Use appropriate extinguishing media (water spray, foam, dry chemical, etc.) for surrounding fire.

SPECIAL FIREFIGHTING PROCEDURES: As in any fire, wear a NIOSH approved self-contained breathing apparatus in positive pressure-demand, and full protective gear.

AUTOIGNITION TEMP (° F) Unknown

UNUSUAL FIRE AND EXPLOSION HAZARDS: High concentrations of dust may present an explosion hazard. The product can form an explosive dust/air mixture. Avoid dust formation and control ignition sources. Employ grounding, venting, and explosion relief provisions in accord with accepted engineering practices in process operations capable of generating dust and/or static electricity.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Protect against identified hazards through use of personal protection equipment and proper work and hygiene practices. Limit foot and vehicular traffic to minimize mechanical agitation and dispersion. The spill should first be contained and the area should be cleaned by wet-sweeping or vacuum cleaning (HEPA filter). This material is considered hazardous. During spill cleanup, residual wash waters should be contained and collected for disposal. Precautionary measures should be taken to prevent material from entering waterways.

CONTAINMENT TECHNIQUES: This is a solid material and will not travel far from the spill location unless mechanically agitated. Therefore, no specific containment techniques are recommended outside of restricting access to the spill location.

SPILL RESPONSE EQUIPMENT:

- Vacuum, equipped with HEPA filter
- Broom, wet mop
- Dustpan, shovel or scoop
- Bags, drums or sacks for collection
- Gloves (rubber or leather)
- Cotton or tyvek coveralls
- Chemical/safety impact goggles
- Respiratory equipment as recommended in Section 8.0

7. HANDLING AND STORAGE

HANDLING:

Always wear recommended personal protective equipment. Avoid creating dust, where possible.

STORAGE:

Store in a cool, dry, well-ventilated area away from incompatible materials. The carbon black component of this material may absorb moisture or vapors. Keep containers tightly sealed to prevent moisture/vapor absorption. Protect containers from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

RESPIRATORY PROTECTION EQUIPMENT: NIOSH/MSHA approved respiratory protection is recommended for use in airborne concentrations exceeding exposure limits identified in section 2. Utilization of respiratory equipment should be in accordance with 29 CFR 1910.134.

PROTECTIVE GLOVES: Leather or rubber gloves are recommended.

EYE AND FACE PROTECTION: Use safety glasses or chemical goggles.

OTHER PROTECTIVE EQUIPMENT: Protective clothing is required if the exposure exceeds the PEL or TLV. Full body, cotton or disposable coveralls should be worn during use and handling. Clothing should be left at work site and be properly disposed of or laundered after use. The wash water should be disposed of in accordance with local, state and federal regulations. Personal clothing should be protected from contamination.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Range/Point	Not applicable
Vapor Pressure	Unknown
Vapor Density (AIR=1)	Unknown
Physical State	Powder
Color	Black
Specific Gravity (water=1)	Not established
Molecular Weight	Not established
Mean Particle Size (µm)	Not established
Melting Point	Not applicable
Solubility in Water	Insoluble
%Volatile by Volume	Not applicable
Evaporation Rate (Butyl Acetate=1)	Not applicable

10. STABILITY AND REACTIVITY

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS: Oxides of carbon and sulfur.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong acids, strong bases, and strong oxidizing agents.

CONDITIONS TO AVOID: Excessive heat or flames.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:	IARC has classified carbon black as a Group 2B carcinogen (possibly carcinogenic to humans).
ACUTE ORAL LD50 (mg/kg):	No data at this time.
ACUTE INHALATION LC50:	No data at this time.
ACUTE DERMAL LD50 (mg/kg):	No data at this time.

12. ECOLOGICAL INFORMATION

MOBILITY: Because this product is in the powder form, mobility is limited to the spill site unless agitated.

DEGRADABILITY: Not expected to biodegrade.

ECOTOXICOLOGICAL INFORMATION: Not expected to be toxic to aquatic or terrestrial plants or animals.

BIOACCUMULATIVE POTENTIAL: Does not bioaccumulate.

CHEMICAL FATE INFORMATION: No data at this time.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Re-blend spilled, unused, off-specification materials with other materials, where possible, in support of waste minimization. Where this is not possible, dispose of material according to Federal (country-specific), state, and local requirements.

EMPTY CONTAINERS: This product may be shipped in paper or nylon bags, steel drums, plastic or steel pails, or intermediate bulk containers. All residual material should be emptied and the containers recycled where possible. Where recycling is not possible, all containers should be disposed of in accordance with Federal (country-specific), state, and local requirements.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: Not Regulated

AIR FREIGHT TRANSPORTATION: Not Regulated

OCEAN TRANSPORTATION: Not Regulated

15. REGULATORY INFORMATION

TSCA STATUS:
All components of this product are on the US TSCA Inventory.

CALIFORNIA PROPOSITION 65:
This product is not known to contain any chemicals known to the state of California to cause cancer or birth defects. However, we do not conduct routine analysis for all listed materials.

Negative Expander Automotive Grade

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST:

This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substance List.

SARA (311, 312) HAZARD CLASS:

None

SARA SECTION 313 TOXIC CHEMICALS:

None

16. OTHER INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.