

# RECEIPT

DATE 12/06/24

No.

620156RECEIVED FROM Merit Construction Engineers\$ 1550.00One thousand five hundred fifty and <sup>00</sup>/<sub>100</sub> DOLLARS FOR RENT FOR DE-SW-0278 D

ACCOUNT	
PAYMENT	
BAL. DUE	

 CASH CHECK MONEY ORDER CREDIT CARD

FROM

44471

TO

BY

M.M.



5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808

Phone: 302-992-9810

Fax: 302-992-9568

## LETTER OF TRANSMITTAL

December 4, 2024

Delaware Department of Natural Resources and  
Environmental Control  
Compliance and Permitting Section  
89 Kings Highway  
Dover, DE 19901

RECEIVED

DEC 06 2024

DNREC - WHS

**RE: Solid Waste Transporter Permit Application (Renewal) for DE-SW-0278D**

Attached to this Transmittal:

- One (1) signed complete Solid Waste Transporter Permit Application for DE-SW-0278D
- MCE Check #44471 (for 5-year permit)

Thank you and please contact me directly with any questions.

Regards,

**Merit Construction Engineers, Inc.**

A handwritten signature in blue ink, appearing to read 'Vincent Dills', is written over the typed name.

Vincent Dills

C: 302-250-6843

RECEIVED

DEC 06 2024

DNREC - WHS



RECEIVED

DEC 06 2024

DNREC - WHS

STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL  
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES  
COMPLIANCE AND PERMITTING SECTION

89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403  
FAX: (302) 739-5060

**SOLID WASTE TRANSPORTER PERMIT APPLICATION**

**Instructions:** You must complete this application in its entirety and attach all applicable documentation. (Note: For applicants renewing an existing permit, this application requires the submission of updated information and documentation. References to material submitted under previous applications are no longer accepted.)

The application must be signed by the company owner or a corporate officer. A check or money order payable to the **"State of Delaware"** must accompany this application and be sent to:

Delaware Department of Natural Resources and Environmental Control  
Compliance and Permitting Section  
89 Kings Highway  
Dover, DE 19901

**1. Type of Permit**

- New – **SCRAP TIRES ONLY** Submit a check or money order, payable to the "State of Delaware," in the amount of \$75.00.
- New – **ALL OTHERS** Submit a check or money order, payable to the "State of Delaware" in the amount of \$350.00.
- Renewal: Permit # DE-SW- 0278D Expiration Date March 31, 2025

Please indicate the term for which you desire your permit to be issued. Submit a check or money order, payable to the "State of Delaware," for the indicated permit fee.

**SCRAP TIRES ONLY**

- One Year - \$75.00
- Two Years - \$125.00
- Three Years - \$175.00
- Four Years - \$225.00
- Five Years - \$275.00

**ALL OTHERS**

- One Year - \$350.00
- Two Years - \$650.00
- Three Years - \$950.00
- Four Years - \$1250.00
- Five Years - \$1550.00

**2. Release to Public**

Do you wish to be included on the list of transporters that is provided to persons requesting a list of Delaware permitted solid waste transporters?  Yes  No

**3. Company Information**

Company Name Merit Construction Engineers, Inc.

Location Address:	Mailing Address:
5700 Kirkwood Highway	5700 Kirkwood Highway
Suite 201	Suite 201
Wilmington, DE 19808	Wilmington, DE 19808

Contact: Vincent Dills Title: President

Business Phone: 302-992-9810 Fax: 302-992-9568

E-mail: [REDACTED]

24 hr Emergency Contact Phone: 302-992-9810

**4. Company Ownership Information**

- (a). Please indicate the company type:
- Proprietorship
  - Partnership
  - Corporation - If company is a corporation, indicate city, state, and date of incorporation.

City: Wilmington State: DE Date: June 1, 1985

- Municipality
- Public institution
- Limited Liability Corporation (LLC) State: \_\_\_\_\_
- Other: (must specify) \_\_\_\_\_

- (b). For each Owner, Partner, or Corporate Officer, attach a list with name, title, mailing address, date of birth, and % ownership. Include all stockholders owning greater than 5% outstanding shares.

Attachment \_\_\_\_\_

- (c). If company is owned by or affiliated with a parent company, attach parent company name, address & mailing address, and % ownership.

Attachment \_\_\_\_\_  
 No parent company

**5. Company locations in Delaware**

List name and street address of each company location, including freight terminals, within the State of Delaware.

- Attachment \_\_\_\_\_  
 No Delaware locations

**6. Company Affiliates**

List name, location and mailing addresses, nature of business relationship of all company Affiliates, which affiliates are engaged in the business of waste transport, treatment, storage, disposal, recovery or reclamation. (Affiliated companies are defined as those companies owned by the same owners, corporate officers, or parent company.)

- Attachment \_\_\_\_\_  
 No affiliates

**7. Type of Waste to be Transported**

(a). Check all that apply. Refer to Delaware's *Regulations Governing Solid Waste* for definitions of waste categories.

- Residential waste  
 Commercial waste (from **non-manufacturing, non-processing** businesses and offices)  
 Industrial waste (from a manufacturing or industrial process)  
 Dry waste:  construction/demolition debris  
 trees/stumps  
 other (must specify) \_\_\_\_\_  
 Ash:  municipal incinerator  
 coal ash  
 other (must specify) \_\_\_\_\_  
 Infectious waste  
 Non-hazardous petroleum-hydrocarbon contaminated soils  
 Asbestos-containing waste  
 Scrap Tires

(b). Does your company collect and transport residential (household) waste from single family homes, condominiums and apartment complexes in Delaware?  Yes  No

(c). If you answered "YES" to question 7.b., above, does your company provide recycling services to those customers?  Yes  No  N/A

(d). If you offer recycling services, does your company collect and transport the recyclables separately from the waste generated by your customers?  Yes  No

(e). If you offer recycling services, are the recyclables ultimately taken to an incinerator (waste-to-energy) or landfill?  Yes  No

**8. Treatment, Storage, and Disposal Facilities**

- (a). Do you cross state lines with the waste?  Yes  No
- (b). Identify in an attachment **all** solid waste Treatment, Storage, Disposal Facilities, Reclamation Facilities and Transfer Stations to which the waste will be transported.
  - Delaware Solid Waste Authority locations: (attachment) attached
  - Clean Earth of New Castle, Inc. (thermal treatment facility for PHC-soils)
  - Delaware Recyclable Products, Inc. (dry waste, commercial, industrial, and PHC-soils )
  - Other in-state solid waste facilities, including private facilities: (attachment) attached
  - Out of state solid waste TSD facilities: (attachment) \_\_\_\_\_

**9. Other Transporter Permits**

- (a). Attach a copy of your home state solid waste transporter permit. (N/A if Delaware is your home state.)
  - Attachment \_\_\_\_\_
  - Not applicable-No transporter permit required for these solid waste types in our home state.

- (b). List solid waste transporter permits held in other states.
  - Attachment \_\_\_\_\_
  - No transporter permits in other states

- (c). Indicate your Federal DOT number and Motor Carrier number:  
DOT# 2889843 MC# N/A

N/A If N/A, please provide an explanation, on the following page, as to why you are not required to have a DOT or MC number.

We are not required to have an MC number because we are a 'private' carrier, hauling our own goods.

**10. Proof of Financial Responsibility**

The transporter must submit proof of financial responsibility as established in section 7.2.4 of Delaware's *Regulations Governing Solid Waste*. This proof may be established by a Certificate of Insurance, with MCS-90 endorsement where applicable, or by other means approved by the Department. (The Certificate of Insurance must identify the **Department of Natural Resources and Environmental Control, Compliance and Permitting Section** as the certificate holder.)

- (a). Are you for-hire in interstate commerce?  Yes  No (For-Hire means you are in the business of transporting, for compensation or payment, wastes generated by a company other than your own.)
- (b). Do you transport in the State of Delaware Only (Intrastate)?  Yes  No
- (c). Do you transport Interstate?  Yes  No

- (d). Certificate of Insurance must be attached and include minimum automobile liability coverage as follows:

	<b>FOR-HIRE INTERSTATE</b>	<b>ALL OTHERS</b>
Residential Waste	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Commercial Waste	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Industrial Waste	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Dry Waste	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input checked="" type="checkbox"/>
Ash	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Infectious Waste	\$1,000,000.00 + MCS-90 <input type="checkbox"/>	\$750,000.00 + MCS-90 <input type="checkbox"/>
Non-Hazardous Petroleum Contaminated Soils	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Asbestos	\$1,000,000.00 + MCS-90 <input type="checkbox"/> (For Hire & Private)	\$350,000.00 <input type="checkbox"/>
Scrap Tires Only	\$350,000.00 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>

### 11. Spill Control and Safety

List all spill control and safety equipment which will be carried on each vehicle. (**Note:** Separate lists by type of vehicle and type of waste may be required.) Attach a copy of the Spill Control Plan. The Spill Control Plan **must** contain the following elements: (1) List of safety and spill control equipment carried in the vehicle, (2) Driver preventive measures, (3) Driver immediate corrective actions, (4) Company internal communications, (5) Company external communications including the **Delaware Emergency Reporting Numbers: 1-800-662-8802 and 302-739-9401**, and (6) Cleanup and decontamination measures.

- ✓ Spill Control Plan: Attachment \_\_\_\_\_

### 12. Driver Training

**IN SUMMARY OR OUTLINE FORM**, describe the procedures that your company takes to ensure that all company drivers are safe and competent drivers. Small owner-operators may describe their years of experience and driving record in lieu of a formal program.

- (a). Include requirements for special licenses (e.g. CDL, including any special endorsements), any special training received, including dates training was received (e.g. asbestos training), and any ongoing company programs. (e.g. weekly safety meetings or annual refresher courses);
- (b). Include your company procedure for periodic checks of the driver's records for moving violations, and your company policy on progressive counseling/discipline based on points;
- (c). Describe how drivers are instructed in the following:
- (i) Knowledge of proper handling procedures for the type of solid waste being transported.
  - (ii) Familiarity with the approved accidental discharge containment plan. (Spill Control Plan)
  - (iii) Familiarity with the conditions of the solid waste transporter's permit.

- ✓ Driver Training, attachment \_\_\_\_\_

**13. Vehicle Identification**

On the form provided with this application, list **MAKE, MODEL, YEAR, SERIAL NUMBER, LICENSE PLATE NUMBER, STATE OF REGISTRATION, MANUFACTURER'S GVWR and OWNERSHIP** of all vehicles used for the transportation of solid waste. You must list both motorized and container units. (If you maintain a list of company vehicles in a computer database you may submit a print out of the vehicles provided it contains the information requested herein.)

**NOTE: You must notify CAPS in writing of any changes to information contained within this application, such as additions or deletions of vehicles, in accordance with conditions of the issued permit.**

Vehicle List Attached

**14. Vehicle Operator Information**

Is a list of all vehicle operators attached?  Yes

What tax form do you submit to the IRS for your vehicle operators?

- Form W-2
- Form 1099-Misc
- Other

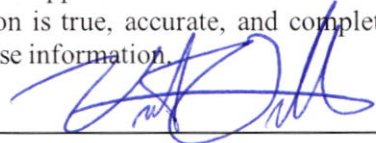
**15. Environmental Record**

List all criminal citations, arrests, convictions, civil or administrative violations, and civil or administrative enforcement actions, and the disposition(s) thereof for the violation or alleged violation of any environmental statute, regulation, permit, license, approval, or order, regardless of the state in which it occurred. Indicate whether it was a local, state, or federal violation or alleged violation. List all such items for the applicant, and if the applicant is other than an individual, for any employee while employed by the applicant, or any partner, officer, or director of the applicant as an individual or for any former business of such partner, officer, or director. For civil or administrative violations or alleged violations, list all such items for the last five (5) years from the date of the application. Information submitted under this section is subject to verification. **Failure to submit complete and accurate information may lead to permit denial or revocation.**

- Attachment \_\_\_\_\_
- No violations within the specified time period

**16. Certification**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, upon personal knowledge and information, the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

\*\*Signature  \_\_\_\_\_ Date 12/04/2024  
Print Name Vincent Dills Title President

**\*\*A legal owner or corporate officer must sign the application\*\***





## SPILL CONTROL PLAN FOR SOLID WASTE HAULERS

- (1) Spill control and safety equipment carried in each vehicle:
  - 1). Reflectors and/or flares
  - 2). Fire extinguisher
  - 3). First aid kit
  - 4). Heavy-duty gloves, hard hat
  - 5). Flashlight
  - 6).
- (2) All loads will be enclosed, covered, or tarped to prevent accidental discharge of the waste during transport to the disposal facility.
- (3) The driver will perform the following pre-trip inspections:
  - 1).
  - 2).
- (4) If there is an accident or other emergency which causes a portion of the load to be spilled, the driver, if uninjured, will contact the following designated company coordinator:  
Name: \_\_\_\_\_ Phone: \_\_\_\_\_
- (5) The designated coordinator will contact the state and municipal authorities where the accident occurred. If the accident or spill has the potential to cause environmental damage, (either due to the nature of the waste, location of the accident, or additional factors such as leaking oil, gasoline, or hydraulic fluid) the person contacted will notify the state emergency response team, by calling one of the following numbers:  
**Delaware: 911, (302) 739-9401 or 1-800-662-8802** (*Other numbers may be listed as follows, however, the listed Delaware numbers **must** be included in the spill control plan.*)  
Maryland:  
New Jersey:
- (6) The designated coordinator will contract for clean-up services with another company. (*This is optional, however, if another company is to be contracted, please append a list of cleanup companies by either region or state.*)
- (7) This plan will be carried in all vehicles, along with the permit.



5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808

Phone: 302-992-9810

Fax: 302-992-9568

December 3, 2024

State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**RE: Solid Waste Transporter Permit Application  
List of Stockholders**

We respectfully submit our list of stockholders as an attachment for the Solid Waste Transporter Permit:

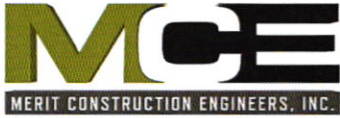
List of Current Stockholders:

<u>Name</u>	<u>Title</u>	<u>Mailing Address</u>	<u>Date of Birth</u>	<u>% Ownership</u>
Vincent Dills	President	5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808	[REDACTED]	64%
Ronald Dills	Secretary	5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808	[REDACTED]	25%
John Everhart	Vice President	5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808	[REDACTED]	11%

Regards,

**Merit Construction Engineers, Inc.**

Vincent Dills



5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808

Phone: 302-992-9810

Fax: 302-992-9568

December 3, 2024

State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**RE: Solid Waste Transporter Permit Application  
List of Locations in Delaware**

We respectfully submit our list of locations in Delaware as an attachment for the Solid Waste Transporter Permit:

List of Locations in Delaware:

<u>Name</u>	<u>Location</u>
Merit Yard / Shop	6 Merit Drive New Castle, DE 19720
Merit Office	5700 Kirkwood Highway Suite 201 Wilmington, DE 19808

Regards,

**Merit Construction Engineers, Inc.**

A handwritten signature in blue ink, appearing to read 'Vincent Dills', is written over the printed name.

Vincent Dills



December 3, 2024

State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**RE: Solid Waste Transporter Permit Application  
List of Delaware In-State Solid Waste Facilities**

We respectfully submit our list of In-State Solid Waste Facilities as an attachment for the Solid Waste Transporter Permit:

List of Solid Waste Facilities:

<u>Name</u>	<u>Location</u>	<u>Description</u>
DSWA Cherry Island Landfill	1706 East 12 <sup>th</sup> Street Wilmington, DE 19809	Dry, general construction debris
Cirillo Bros. Inc.	761 Gratham Lane New Castle, DE 19720	Asphalt and concrete only
Contractors Materials LLC	925 S. Heald Street Wilmington, DE 19801	Asphalt and concrete only

Regards,

**Merit Construction Engineers, Inc.**

Vincent Dills



U.S. Department of Transportation Federal Motor Carrier Safety Administration FORM MCS-90

ENDORSEMENT FOR MOTOR CARRIER POLICIES OF INSURANCE FOR PUBLIC LIABILITY UNDER SECTIONS 29 AND 30 OF THE MOTOR CARRIER ACT OF 1980

OMB No.: 2126-0008 Expiration : 5/31/2024

USDOT Number: \_\_\_\_\_ Date Received: \_\_\_\_\_

Please note, the expiration date as stated on this form relates to the process for renewing the Information Collection Request for this form with the Office of Management and Budget. This requirement to collect information as requested on this form does not expire. For questions, please contact the Office of Registration and Safety Information, Registration, Licensing, and Insurance Division.

A Federal Agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to be approximately 2 minutes per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Motor Carrier Safety Administration, MC-RRA, Washington, D.C. 20590.

Issued to MERIT CONSTRUCTION ENGINEERS INC of Delaware (Motor Carrier name) (Motor Carrier state or province)
Dated at P.O. Box 300, Marietta, PA 17547 on this 21 day of December 2023
Amending Policy Number 1000111558 Effective Date 01/01/2024
Name of Insurance Company Atlantic States Insurance Company

Countersigned by [Signature] (authorized company representative)

The policy to which this endorsement is attached provides primary or excess insurance, as indicated for the limits shown (check only one):

- This insurance is primary and the company shall not be liable for amounts in excess of \$ 1,000,000 for each accident.
This insurance is excess and the company shall not be liable for amounts in excess of \$ \_\_\_\_\_ for each accident in excess of the underlying limit of \$ \_\_\_\_\_ for each accident.

Whenever required by the Federal Motor Carrier Safety Administration (FMCSA), the company agrees to furnish the FMCSA a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FMCSA, to verify that the policy is in force as of a particular date. The telephone number to call is: 1-800-877-0600

Cancellation of this endorsement may be effected by the company of the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the FMCSA's registration requirements under 49 U.S.C. 13901, by providing thirty (30) days notice to the FMCSA (said 30 days notice to commence from the date the notice is received by the FMCSA at its office in Washington, DC).

Filings must be transmitted online via the Internet at http://www.fmcsa.dot.gov/urs.

**DEFINITIONS AS USED IN THIS ENDORSEMENT**

**Accident** includes continuous or repeated exposure to conditions or which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

**Motor Vehicle** means a land vehicle, machine, truck, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway for transporting property, or any combination thereof.

**Bodily Injury** means injury to the body, sickness, or disease to any person, including death resulting from any of these.

**Property Damage** means damage to or loss of use of tangible property.

**Environmental Restoration** means restitution for the loss, damage, or destruction of natural resources arising out of the accidental discharge, dispersal, release or escape into or upon the land, atmosphere, watercourse, or body of water, of any commodity transported by a motor carrier. This shall include the cost of removal and the cost of necessary measures taken to minimize or mitigate damage to human health, the natural environment, fish, shellfish, and wildlife.

**Public Liability** means liability for bodily injury, property damage, and environmental restoration.

The insurance policy to which this endorsement is attached provides automobile liability insurance and is amended to assure compliance by the insured, within the limits stated herein, as a motor carrier of property, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Motor Carrier Safety Administration (FMCSA).

In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other endorsement thereon, or violation

thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions, and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

The limits of the company's liability for the amounts prescribed in this endorsement apply separately to each accident and any payment under the policy because of any one accident shall not operate to reduce the liability of the company for the payment of final judgments resulting from any other accident.

(continued on next page)



<b>SCHEDULE OF LIMITS - PUBLIC LIABILITY</b>
--

Type of carriage	Commodity transported	January 1, 1985
(1) For-hire (in interstate or foreign commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Property (nonhazardous)	\$ 750,000
(2) For-hire and Private (in interstate or foreign, or intrastate commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Hazardous substances, as defined in 49 CFR 171.8, transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Division 1.1, 1.2, and 1.3 materials, Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material, as defined in 49 CFR 173.403.	\$5,000,000
(3) For-hire and Private (in interstate or foreign commerce, in any quantity; or in intrastate commerce, in bulk only; with a gross vehicle weight rating of 10,001 or more pounds).	Oil listed in 49 CFR 172.101; hazardous waste, hazardous materials, and hazardous substances defined in 49 CFR 171.8 and listed in 49 CFR 172.101, but not mentioned in (2) above or (4) below.	\$1,000,000
(4) For-hire and Private (In interstate or foreign commerce, with a gross vehicle weight rating of less than 10,001 pounds).	Any quantity of Division 1.1, 1.2, or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; or highway route controlled quantities of a Class 7 material as defined in 49 CFR 173.403.	\$5,000,000

\*The schedule of limits shown does not provide coverage. The limits shown in the schedule are for information purposes only.



# Hazardous Substance Spill Response

Location: SHOP / ALL JOB SITES

Effective Date: 1/1/24

Revision Number: 3

## Purpose

This policy establishes how Merit Construction Engineers, Inc. will protect employees in the event of a hazardous substance spill or release. It will outline the emergency action plan as well as the roles employees are expected to take on. The policy is in place to keep Merit Construction Engineers, Inc. staff safe, but also to prevent environmental contamination and help comply with OSHA's Hazardous Waste Operations and Emergency Response (HAZWOPER) standard.

After reading this policy, employees will understand the following:

- How to identify a hazardous substance spill or release
- What immediate actions he/she should take
- How his/her actions fit within the larger scope of Merit Construction Engineers, Inc. emergency response plan

## Scope

This policy applies to all Merit Construction Engineers, Inc. employees who have the possibility of witnessing or accidentally causing a hazardous substance spill or release.

## POLICY GUIDELINES

### What Qualifies as an Emergency Spill

Not all spills are necessarily emergencies even if they involve hazardous substances. Incidental releases are spills that do not pose immediate or short-term safety/health hazards to employees in the vicinity or to those cleaning it up. However, the following will always constitute emergency situations and require adherence to Merit Construction Engineers, Inc. emergency response plan:

- The presence of high concentrations of toxic substance, whether because of a spill or leak
- Any situation involving hazardous substances that could cause injury or be life-threatening
- The presence of environments that present imminent danger to life and health (IDLH situations)
- Accidents that result in an oxygen-deficient atmosphere
- Conditions that pose a fire or explosion hazard
- Any situation that requires evacuation of an area or that requires immediate attention because of the danger posed to employees in that area

### What Qualifies as a Hazardous Substance

Each employee and contractor performing work for Merit Construction Engineers, Inc. will know what a hazardous substance is. The employee will understand that a hazardous substance, according to OSHA's HAZWOPER standard, is the following:

- Intended to encompass those substances deemed hazardous by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Transportation (DOT)
  - A biological agent or any other disease-causing agent
  - Able to cause, or reasonably anticipated/expected to cause after release into the environment, death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physiological deformations in people or their offspring upon exposure, ingestion, inhalation and/or assimilation
-

- Released by deposit, injection, dumping, spilling, leaking or placing near a site where the substance could feasibly enter the environment. It could enter the environment by being emitted into the air or discharged into any water, including groundwater.

### **How Hazardous Substance Will Be Identified**

Each employee and contractor performing work for Merit Construction Engineers, Inc. will understand how to identify a hazardous substance and the following:

- Use Merit Construction Engineers, Inc. labeling system and Safety Data Sheets (SDS) to recognize a hazardous substance emergency
- Assess the potential outcomes associated with the hazardous substance emergency
- Have the ability to realize the need for additional resources and make appropriate notifications

## **INDIVIDUAL EMPLOYEE ROLES**

### **First Responder Awareness Level**

Individuals who are likely to witness a hazardous substance release but whose only responsibility is to notify the proper authorities must demonstrate the following:

- Knowledge of hazardous substance risks, how they should be handled and the potential outcomes associated with the situation
- The ability to specifically identify the hazardous substances, if possible

### **First Responder Operations Level**

Individuals who have the responsibility of responding to hazardous substance releases for the purpose of protecting nearby people, property or environment from damage must demonstrate the following:

- Understanding and knowledge of all requirements of the First Responder Awareness Level
- Knowledge of Merit Construction Engineers, Inc. emergency response plan and how to implement it
- Knowledge of hazard and risk assessment
- Knowledge of proper personal protective equipment (PPE) appropriate for the situation and how to use it
- Ability to classify, identify and verify known and unknown materials by using survey equipment
- Knowledge of basic control, containment and/or confinement operations
- Knowledge of basic chemical and toxicological terminology/behavior

### **Hazardous Materials Technician**

Members of the Hazardous Materials (hazmat) Team, who respond to releases with the purpose of actively and aggressively stopping them by patching, plugging or otherwise impeding, must demonstrate the following:

- Understanding and knowledge of all requirements of the Hazardous Materials Technician Level
- Understanding of the local, state and federal emergency response plans
- Ability to classify, identify and verify known and unknown materials using advanced survey equipment
- The ability to perform advanced control, containment and/or confinement operations with the resources and PPE available
- Ability to implement decontamination procedures
- Advanced knowledge of chemical, radiological and toxicological terminology and behavior

### **On-Scene Incident Commander**

Member of the hazmat team who assume control of the incident site in case of an emergency must demonstrate the following:

- Ability to implement Merit Construction Engineers, Inc. incident command system
- Ability to implement Merit Construction Engineers, Inc. emergency response plan
- Understanding of the hazards and risks associated with employees working in chemical protective clothing
- Understanding of the importance of decontamination procedures

### **Training**

- Each level of employee will be properly trained for at least the time specified in the HAZWOPER standard.
- Additional training will be provided until each employee understands and is able to demonstrate the knowledge required for his or her position.
- Training shall be provided not only for employees, but also Merit Construction Engineers, Inc. subcontractors who have the reasonable possibility of being present during a hazardous chemical release or spill.
- Staff will receive additional, refresher training on these roles and responsibilities annually.

### **EMERGENCY RESPONSE PLAN**

#### **Incidental Spills (that can be controlled with a Spill Kit, typically < 5 gallons)**

Do the following in the event a spill presents no immediate danger to the health and safety of employees or the environment:

- Inform those in the immediate area that a spill has occurred.
- If the chemical is flammable, eliminate any possible sources of ignition that may be in the area.
- If anyone has come into direct contact with the chemical, a trained first responder must be contacted to assess the individual.
- Determine what personal protective equipment is required to handle the hazardous material using the appropriate Safety Data Sheet (SDS).
- Follow the cleanup and control methods listed in the appropriate SDS.
- ***Each Merit Construction Engineers, Inc. vehicle is supplied with a 5-gallon universal spill kit containing: 10EA 15 x 19" sorbent pads, 2EA 3" x 4'-0" sorbent socks, 1EA pair of Nitrile Gloves, 1EA disposal bag. And 1EA 2.5lb Fire Extinguisher containing Monoammonium Phosphate.***
- Make sure the area is completely decontaminated before work in that location resumes.
- Notify your immediate supervisor of the incident so he may report it to Merit Construction Engineers, Inc. – **Vincent Dills, President and Spill Control / Safety Supervisor, P: 302-992-9810.**

#### **Unknown Material Spills or Large spills**

Do the following if a spill is very large or if the exact makeup or effects of the spilled chemical are unknown:

- Immediately inform those in the area that a spill has occurred and that they must evacuate.
- If the chemical is flammable, or if you are unsure whether or not it is flammable, eliminate any possible sources of ignition that may be in the area.
- Leave any containers in the area to aid the first responder or hazmat Team in identifying the spill.
- Close all doors to that area to keep the spill as contained as possible.
- Activate the building's fire alarm.
- Notify **Vincent Dills, President and Spill Control / Safety Supervisor, P: 302-992-9810** so they may send the appropriate assistance.

- **Notify the Delaware Department of Natural Resources and Environmental Control (DNREC) Spill Hotline: 800-662-8802 or 302-739-9401**
- Do not attempt to clean up the spill yourself; wait until the first responders arrive to assess the situation.
- If the first responders determine that the severity of the spill goes beyond their containment abilities they will contact the Hazmat Team.

### **Spills Creating an Immediate Health Threat**

Do the following in the event a spill creates an immediate health threat to employees, patrons, visitors or any other witnesses in the area:

- Evacuate the area immediately.
- Leave everything in place and close all doors on the way out to isolate the area.
- Activate the building's fire alarm (if applicable).
- **Call 911.**
- **Notify the Delaware Department of Natural Resources and Environmental Control (DNREC) Spill Hotline: 800-662-8802 or 302-739-9401**
- Once clear of the affected area, immediately notify **Vincent Dills, President and Spill Control / Safety Supervisor, P: 302-992-9810** of the situation so they may coordinate assistance.
- Wait in a safe area near the entrance to the building until the Hazmat Team arrives so you can explain the details of the situation.

### **Reporting**

Under federal law, a report must be filed with the National Response Center (NRC) whenever the spill exceeds the established Superfund Reportable Quantity. Report all spills to **Vincent Dills, President and Spill Control / Safety Supervisor, P: 302-992-9810** so they may contact the NRC if necessary.

### **Employee Knowledge**

Both Merit Construction Engineers, Inc. employees and hired subcontractors working with the reasonable possibility of being around a hazardous chemical release will be made aware of the HAZWOPER emergency response plan and understand each of its parts, which include vital information on the following:

- Pre-emergency planning, including recognition and prevention
- Personnel roles, lines of authority, training and communication standards
- Safe distances and places of refuge in case of emergency
- Site security and control standards
- Evacuation routes and procedures
- Decontamination procedures
- Emergency medical treatment and first aid procedures
- Emergency alerting and response procedures
- **MSDS Sheets for commonly used hazardous materials within the scope of Merit Construction Engineers, Inc. work is attached to this Hazardous Substance Spill Plan.**

**MSDS**  
**CONCRETE**



## Material Data Sheet

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ready Mix Concrete, Pre-Mixed Concrete, Transit Mixed Concrete, Grout  
MSDS covers all Concrete Mix Designs prepared by Bear Materials.

CAS No.: N/A

Product Use: Ready Mix Concrete is a structural component used in structural and civil engineering.

MSDS information: This product is classified as hazardous, according to criteria of WHMIS regulations.

Chemical Family: N/A

Chemical Name And Synonyms: N/A

Formula: This product consists of Portland cement, slag, sand, aggregate, and Ad mixtures, individual compositions will vary within the mix design ranges.

Supplier/Manufacturer: Bear Materials, LLC

Emergency Contact Information: Bear Materials, LLC  
Bob Mraz (302) 744-0860

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Ready Mix Concrete Ingredients & Their Exposure Limits:

#### Current ACGIH TLV for 8 hour Exposure

Chemical Entity/Ingredient	CAS No:	Percentage of Mix	Total Dust (Mass) mg/m <sup>3</sup>	Respirable Dust (Mass) mg/m <sup>3</sup>
Crushed stone or gravel		0 to 60	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Sand		1 to 50	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Portland Cement	65997-15-1	1 to 25	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Water				
Slag		1 to 25	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Crystalline Silica	14808-60-7	0.01 to 5	2 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>

Note: Cements and Sand and gravel may contain 0.1% - 60% crystalline silica (CAS No. 14808-60-7) depending on the proportion and crystalline silica content of the ingredients. All ingredients may contain crystalline silica. Wet stage poses no risk or hazard.

# MATERIAL SAFETY DATA SHEET

## SECTION 3 - HAZARDS IDENTIFICATION

### Emergency Overview:

Concrete is a light gray fluid mixture that poses an immediate hazard to eye tissue. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns, including third degree burns.

If footwear or clothing becomes saturated with wet concrete, remove immediately and wash area with water and mild soap. Do not allow prolonged contact.

### Potential Health Effects:

- Relevant routes of exposure are:
- EYE CONTACT and SKIN CONTACT

#### **Effects Resulting From EYE CONTACT:**

Exposure to wet concrete may cause immediate or delayed irritation or inflammation. Eye contact by splashes of wet concrete may cause effects ranging from moderate eye irritation to chemical burns and blindness. Such exposures require immediate first aid and medical attention to prevent significant damage to the eye.

#### **Effects Resulting From SKIN CONTACT:**

Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly contact with wet concrete. Exposed persons may not feel discomfort until hours after the exposure has ended and significant injury has occurred.

Exposure to moist or wet concrete may cause more severe skin effects including thickening, cracking, fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns.

#### **Effects Resulting From INHALATION:**

Concrete may contain amounts of crystalline silica. Prolonged exposure to respirable free crystalline silica may aggravate other lung conditions. It may also cause delayed lung injury including silicosis, a disabling and potentially fatal lung disease, and/or other diseases. (Also see "Carcinogenic Potential" below.)

Respirable exposure to silica in concrete may occur only if concrete is drilled, cut, ground or polished. Exposure to concrete dust may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system. The dust may also leave unpleasant deposits in the nose.

#### **Effects Resulting From INGESTION:**

Not Applicable

- Chronic Effects

Some individuals may exhibit an allergic response upon exposure to ready-mix concrete. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Others may first experience this effect after years of contact with ready-mix concrete. Minimizing contact with skin is the basic protection to reduce this exposure.



## MATERIAL SAFETY DATA SHEET

### • Carcinogenic Potential

Ready Mix Concrete is not listed as a carcinogen by NTP, OSHA, or IARC. It may, however, contain trace amounts of substances listed as carcinogens by those organizations.

Crystalline silica, a potential trace level contaminant in portland cement, is found in the aggregate components in varying percentages and is classified by IRAC as a known human carcinogen (Group 1). NTP has characterized respirable silica as "reasonably anticipated to be [a] carcinogen".

### • Medical Conditions That May Be Aggravated By Inhalation or Dermal Exposure:

- ◊ Pre-existing upper respiratory and lung diseases.
- ◊ Previous exposure to dust from hardened product.
- ◊ Unusual or (hyper) sensitivity to hexavalent chromium (chromium (+6)) salts.

## SECTION 4 - FIRST AID MEASURES

### • Eyes

Immediately flush eyes thoroughly with water. Continue flushing for 15 minutes, including under the lids, for at least 15 minutes. Seek medical attention immediately.

### • Skin

Wash skin with water and pH neutral soap or mild detergent intended for use on skin.

If clothing or footwear is saturated remove immediately and wash area with water and mild soap. If contact has been severe enough to cause reddening or actual burns to skin, place sterile bandage on area and seek medical attention.

### • Inhalation

In wet form, concrete cannot be inhaled.

### • Ingestion

In wet form, concrete is unlikely to be ingested. If concrete enters mouth, wash out with water immediately. Seek medical attention if any burning sensation or actual burns occur.

## SECTION 5 - FIRE EXPLOSION DATA / FIRE FIGHTING MEASURES

Flammability:	Not Flammable.	Flash Point:	Not Applicable.
Lower Explosive Limit:	Not Applicable.	Upper Explosive Limit:	Not Applicable.
Auto Ignition Temperature:	Not Applicable.	Sensitivity To Static Discharge:	Not Applicable.
Sensitivity To Impact:	Not Applicable.	Extinguishing Media:	Not Applicable.
Special Fire-Fighting Procedures:	None.	Hazardous Combustion Products:	Not Applicable.
Unusual Fire And Explosion Hazards:	Not Applicable.		

# MATERIAL SAFETY DATA SHEET

## SECTION 6 - STABILITY AND REACTIVITY

Stability:	Stable
Incompatibility:	Portland cement reacts with water to produce a caustic solution, pH 12 to pH 13. Wet concrete is alkaline. As such it is incompatible with acids, ammonium salts, and aluminum metal. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Concrete dissolves in hydrofluoric acid producing corrosive silicon tetrafluoride gas. Silicates react with powerful oxidizers such as fluorine, chlorine, trifluorides, and oxygen difluoride.
Hazardous Decomposition:	Will not occur.
Hazardous Polymerization:	Will not occur.

## SECTION 7 - HANDLING AND STORAGE

Normal temperatures and pressures do not affect the material.

Promptly remove dusty clothing or clothing which is wet with concrete fluids and launder before reuse. Wash thoroughly after exposure to dust or wet cement mixtures or fluids.

Ready Mix Concrete is premixed at a plant or in a truck mixer drum and delivered to the end user in semi-fluid state ready to be placed to set in final form.

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Eye Protection:

Safety glasses with side shields, or goggles, should be worn when engaged in activities where cement dust, wet cement, or concrete could contact the eye. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with ready mix concrete or fresh concrete products.

### Skin Protection:

Prevention is essential to avoid potentially severe skin injury. Avoid contact with unhardened (wet) concrete products. If contact occurs, promptly wash affected area with soap and water. Wear impervious clothing and gloves to eliminate skin contact where prolonged exposure to unhardened ready mix concrete products might occur. Wear boots that are impervious to water to eliminate foot and ankle exposure. If standing in wet concrete rubber boots must be worn to prevent injury.

Wet concrete may splash into open boot tops and saturate socks and remain in contact for a lengthy period of time. Prevention is to ensure that boots are fully laced up.

Do not rely on barrier creams; barrier creams should not be used in place of gloves.

Periodically wash areas in contact with dry portland cement, wet cement, or concrete fluids with a pH-neutral soap. Wash again at the end of workday. If irritation occurs, immediately wash the affected area and seek treatment. Clothing saturated with wet concrete should be removed immediately and replaced with clean, dry clothing. Do not allow clothing saturated with wet concrete to remain in contact with skin for any period of time.

# MATERIAL SAFETY DATA SHEET

## Respiratory Protection:

Avoid actions that cause dust to become airborne. Use local or general ventilation to control exposures to below applicable exposure limits.

Use NIOSH/MSHA-approved (under 30 CFR 11) or NIOSH-approved (under 42 CFR 84 after July 10, 1998) respirators in poorly ventilated areas, if an applicable exposure limit is exceeded, or when dust causes discomfort or irritation.

## Ventilation:

Use local exhaust or general dilution ventilation to control exposure within applicable limits.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	gray fluid / hydraulic mixture	Odor:	No distinct odor.
Odor Threshold:	Not applicable.	Physical State:	Solid (powder).
pH (as a solid):	Not applicable.	pH:	12 to 13
Solubility in Water:	Not applicable.	Vapor Pressure:	Not applicable.
Vapor Density:	Not applicable.	Boiling Point:	Not applicable (i.e., >1000°C).
Freezing Point:	Not applicable.	Melting Point:	Not applicable.
Specific Gravity (H <sub>2</sub> O = 1.0):	3.15	Evaporation Rate:	Not applicable.
Coeff. Water/Oil Dist.:	Not applicable.		

## SECTION 10 - TOXICOLOGICAL INFORMATION

### Effects Of Acute Exposure:

Wet concrete mixtures can dry the skin, cause alkali burns, and irritate the eyes and upper respiratory tract. Ingestion can cause irritation of the throat.

### Effects Of Chronic Exposure:

Dust from concrete can cause inflammation/irritation of the tissue lining the interior of the nose and the cornea (white) of the eye.

## SECTION 11 - ECOLOGICAL INFORMATION

Ecotoxicity: No recognized unusual toxicity to plants or animals.

## SECTION 12 - DISPOSAL CONSIDERATIONS

Dispose of waste material according to local, provincial, state, and federal regulations. (Since set concrete is stable, allow material to harden).

Dispose in an approved landfill.

# MATERIAL SAFETY DATA SHEET

## SECTION 13 - TRANSPORT INFORMATION

Hazardous materials description/ proper shipping name:	Ready Mix Concrete is not hazardous under the TDG Act (Canada) or DOT regulations (USA).
Hazard Class:	Not applicable.
Identification Number:	Not applicable.
Required Label Text:	Not applicable.
Hazardous substances/reportable quantities (RQ):	Not applicable.

## SECTION 14 - REGULATORY INFORMATION

### Status under USDOL-OSHA Hazard Communication Rule, 29 CFR 1610.1206:

Ready Mix Concrete is considered a "hazardous chemical" under this regulation and should be part of any hazard communication program.

### Status under CERCLA/Superfund, 40 CFR 117 and 302:

Not listed.

### Hazard Category under SARA (Title III), Sections 311 and 312:

Ready Mix Concrete qualifies as a "hazardous substance" with delayed health effects.

### Status under SARA (Title III), Section 313:

Not subject to reporting requirements under Section 313.

## SECTION 15 - REGULATORY INFORMATION (CONTINUED)

### Status under TSCA (as of May 1997):

Some substances in Ready Mix Concrete are on the TSCA inventory list.

### Status under the Federal Hazardous Substances Act:

Ready Mix Concrete is a "hazardous substance" subject to statutes promulgated under the subject act.

### Status under California Proposition 65:

This product contains chemicals (trace metals) known to the State of California to cause cancer, birth defects, or other reproductive harm. California law requires the manufacturer to give the above warning in the absence of definitive testing to prove the defined risks do not exist.

### Status under Canadian Environmental Protection Act:

Not listed.

# MATERIAL SAFETY DATA SHEET

## Status under WHMIS:

Portland cement is considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations and is therefore subject to the labeling and MSDS requirements of the Workplace Hazardous Materials Information System (WHMIS).

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

## SECTION 16 - OTHER INFORMATION

Prepared By:	Robin Cowdrey
Approved By:	Greg McCaughey
Approval Date or Revision Date:	October 1, 2004
Date Of Previous MSDS:	October 15, 2002
MSDS Number:	Not Applicable

## Other important information:

Concrete should only be used by knowledgeable persons. Vital to using the product safely requires the user to recognize that portland cement chemically reacts with water and that some of the intermediate products of this reaction, during the setting stage, are the cause of the hazards when handling this product.

While the information provided in this material safety data sheet is believed to provide a useful summary of the hazards of concrete, as it is commonly used, one cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product.

The data furnished in this sheet does not address hazards that may be posed by other materials mixed with concrete. Users should review other relevant material safety data sheets before working with concrete or working with products containing portland cement.

No representations or warranties with respect to the accuracy or correctness of this information, or of any kind or nature whatsoever are given, made, or intended by Inland Concrete Limited. No legal responsibility whatsoever is assumed for this information, or for any injuries or damages, however caused, which may result from the use of this information. This information is offered solely for informational purposes and is subject to your own independent investigation and verification.

**MSDS**  
**DIESEL FUEL**



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** DIESEL FUELS

**Other means of identification**

**SDS number** 102-GHS

**Synonyms** Diesel Fuels All Grades, Diesel Fuel No.2, Fuel Oil No.2, High Sulfur Diesel Fuel, Low Sulfur Diesel Fuel, Ultra Low Sulfur Diesel Fuel, CARB (California Air Resource Board) Diesel Fuel, Off-Road Diesel Fuel, Dyed Diesel Fuel, X Grade Diesel Fuel, X-1 Diesel Fuel, R5 ULSD, B5 ULS D See section 16 for complete information.

**Recommended use** Motor Fuel  
Refinery feedstock.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer/Supplier** Valero Marketing & Supply Company and Affiliates  
One Valero Way  
San Antonio, TX 78269-6000  
210-345-4593

**General Assistance** 210-345-4593

**E-Mail** CorpHSE@valero.com

**Contact Person** Industrial Hygienist

**Emergency Telephone** 24 Hour Emergency 866-565-5220  
1-800-424-9300 (CHEMTREC USA)

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 3

**Health hazards** Acute toxicity, inhalation Category 4  
Skin corrosion/irritation Category 2  
Carcinogenicity Category 2  
Reproductive toxicity Category 2  
Specific target organ toxicity, repeated exposure Category 2  
Aspiration hazard Category 1

**Environmental hazards** Hazardous to the aquatic environment, long-term hazard Category 2

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Danger

**Hazard statement** Flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (blood, thymus, liver) through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

**Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Do not breathe mist/vapors/spray. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area.

DIESEL FUELS

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

1 / 11

Prepared by 3E Company

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<b>Response</b>	If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If exposed or concerned: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor. Take off contaminated clothing and wash before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.
<b>Storage</b>	Store locked up. Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.

**3. Composition/information on ingredients**

**Mixtures**

Chemical name	CAS number	%
Fuels, diesel, no. 2	68476-34-6	85 - 100
Biodiesel - Fatty acid methyl esters	67762-38-3	0 - 10
Fuels, diesel, C9-18-alkane branched and linear	1159170-26-9	0 - 5
n-Nonane	111-84-2	1 - 3
Octane (All isomers)	111-65-9	1 - 2
Hexane (Other isomers)	96-14-0	0 - 1
Naphthalene	91-20-3	0 - 1
n-Heptane	142-82-5	0 - 1
n-Hexane	110-54-3	0 - 1

**4. First-aid measures**

<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin contact</b>	Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high pressure injection under the skin occurs, always seek medical attention.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
<b>Ingestion</b>	Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Do not give mouth-to-mouth resuscitation. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.
<b>Most important symptoms/effects, acute and delayed</b>	Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash. The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere.
<b>Indication of immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. The toxicological properties of this material have not been fully investigated.
<b>General Information</b>	If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

**5. Fire-fighting measures**

**Suitable extinguishing media** Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

2 / 11

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45 PM No. 6368



<p><b>Unsuitable extinguishing media</b></p> <p><b>Specific hazards arising from the chemical</b></p> <p><b>Special protective equipment and precautions for firefighters</b></p> <p><b>Fire-fighting equipment/instructions</b></p>	<p>Do not use a solid water stream as it may scatter and spread fire.</p> <p>The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Thermal decomposition or combustion may liberate toxic gases or fumes.</p> <p>Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.</p> <p>Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.</p>
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**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment.

**Methods and materials for containment and cleaning up** Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Local authorities should be advised if significant spillages cannot be contained. Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Use non-sparking tools and explosion-proof equipment.

**Small Spills:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. This material and its container must be disposed of as hazardous waste.

**Large Spills:** Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Do not allow material to contaminate ground water system. Should not be released into the environment.

Clean up in accordance with all applicable regulations.

**Environmental precautions**

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Flammable. Review Firefighting Measures, Section 5, before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g. by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Use compatible foam to minimize vapor generation as needed. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 1-800-424-8802. For highway or railways spills, contact Chemtrec at 1-800-424-9300.

**7. Handling and storage**

**Precautions for safe handling**

Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Wear personal protective equipment. Avoid breathing mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Avoid prolonged exposure. Use only with adequate ventilation. Wash thoroughly after handling. The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. When using, do not eat, drink or smoke. Avoid release to the environment.

**DIESEL FUELS**

813578 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

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Received Time Jul. 4. 2014 9:45PM No. 6368

Conditions for safe storage, including any incompatibilities

Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. The pressure in sealed containers can increase under the influence of heat. Keep container lightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children.

**8. Exposure controls/personal protection**

**Occupational exposure limits**

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Naphthalene (CAS 91-20-3)	PEL	50 mg/m3 10 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3 500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3 500 ppm
Octane (All isomers) (CAS 111-65-9)	PEL	2350 mg/m3 500 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Fuels, diesel, no. 2 (CAS 68476-34-6)	TWA	100 mg/m3	Inhalable fraction and vapor.
Hexane (Other isomers) (CAS 96-14-0)	STEL	1000 ppm	
Naphthalene (CAS 91-20-3)	TWA	500 ppm	
	STEL	15 ppm	
n-Heptane (CAS 142-82-5)	TWA	10 ppm	
	STEL	500 ppm	
n-Hexane (CAS 110-54-3)	TWA	400 ppm	
	STEL	50 ppm	
n-Nonane (CAS 111-84-2)	TWA	200 ppm	
Octane (All isomers) (CAS 111-65-9)	TWA	300 ppm	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Hexane (Other isomers) (CAS 96-14-0)	Ceiling	1800 mg/m3
	TWA	510 ppm 350 mg/m3 100 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3 15 ppm
	TWA	50 mg/m3 10 ppm
	Ceiling	1800 mg/m3 440 ppm
n-Heptane (CAS 142-82-5)	TWA	350 mg/m3 85 ppm
	Ceiling	180 mg/m3 50 ppm
n-Nonane (CAS 111-84-2)	TWA	1050 mg/m3 200 ppm
Octane (All isomers) (CAS 111-65-9)	Ceiling	1800 mg/m3
	TWA	385 ppm 350 mg/m3 75 ppm

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

Prepared by 3E Company

Received Time Jul. 4, 2014 9:45PM No. 6368

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,6-Hexanedio n, without hydrolysis	Urine	*
	0.4 mg/l	2,5-Hexanedj - on, without hydrolysis		*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

n-Hexane (CAS 110-54-3) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Fuels, diesel, no. 2 (CAS 68476-34-6) Can be absorbed through the skin.

Naphthalene (CAS 91-20-3) Can be absorbed through the skin.

n-Hexane (CAS 110-54-3) Can be absorbed through the skin.

**Appropriate engineering controls**

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

**Skin protection**

**Hand protection**

Wear chemical-resistant, impervious gloves. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

**Other**

Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties**

Appearance	Liquid (may be dyed red).
Physical state	Liquid.
Form	Liquid.
Color	Clear. Straw.
Odor	Kerosene (strong).
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-60.07 °F (-51.15 °C) Estimated
Initial boiling point and boiling range	325 - 700 °F (162.78 - 371.11 °C)
Flash point	> 100.0 °F (> 37.8 °C) Closed Cup
Evaporation rate	0.02
Flammability (solid, gas)	Not available.

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

5 / 11

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45PM No. 6368

**Upper/lower flammability or explosive limits**

Flammability limit - lower (%)	0.4 %
Flammability limit - upper (%)	8 %
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 1 mm Hg (20°C)
Vapor density	3 (Air = 1)
Relative density	0.82 - 0.87
Relative density temperature	60 °F (15.56 °C)
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	494.96 °F (257.2 °C)
Decomposition temperature	Not available.
Viscosity	2 - 4.5 mm <sup>2</sup> /s

**10. Stability and reactivity**

Reactivity	Stable at normal conditions.
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

**11. Toxicological information**

**Information on likely routes of exposure**

Ingestion	May be fatal if swallowed and enters airways.
Inhalation	Harmful if inhaled. In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea.
Skin contact	Causes skin irritation.
Eye contact	May cause eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**  
 Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash. The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions.

**Information on toxicological effects**

**Acute toxicity**  
 Harmful if inhaled. Harmful; may cause lung damage if swallowed. The toxicological properties of this material have not been fully investigated.

Components	Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)		
Acute		
Inhalation		
LC50	Rat	4.1 mg/l, 4 hours

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45PM No. 6368

Components	Species	Test Results
<b>Naphthalene (CAS 91-20-3)</b>		
<b>Acute</b>		
<i>Derma</i>		
LD50	Rabbit	> 2 g/kg
<i>Oral</i>		
LD50	Rat	490 mg/kg
<b>n-Heptane (CAS 142-82-5)</b>		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	103 mg/l, 4 Hours
<b>n-Hexane (CAS 110-54-3)</b>		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	28710 mg/kg
<b>n-Nonane (CAS 111-84-2)</b>		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	3200 mg/l, 4 Hours
<b>Octane (All isomers) (CAS 111-65-9)</b>		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	118 mg/l, 4 Hours
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Based on available data, the classification criteria are not met.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.	
<b>Skin sensitization</b>	Based on available data, the classification criteria are not met.	
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.	
<b>Carcinogenicity</b>	Suspected of causing cancer. International Agency for Research on Cancer (IARC): Whole diesel engine exhaust – IARC Group 1. Exposure may cause lung cancer and also noted a positive association with an increased risk of bladder cancer. Diesel exhaust has been reported to be an occupational hazard due to NIOSH-reported potential carcinogenic properties.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Fuels, diesel, no. 2 (CAS 68476-34-6)	3 Not classifiable as to carcinogenicity to humans.	
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.	
<b>NTP Report on Carcinogens</b>		
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.	
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child. Naphthalene interferes with embryo development in experimental animals at dose levels that cause maternal toxicity. In humans, excessive exposure to this agent may cause hemolytic anemia in the mother and fetus.	
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.	
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to the following organs through prolonged or repeated exposure: Blood. Liver. Thymus.	
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.	
<b>Chronic effects</b>	Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication. Repeated exposure to naphthalene may cause cataracts, allergic skin rashes, destruction of red blood cells, and anemia, jaundice, kidney and liver damage. Danger of serious damage to health by prolonged exposure. Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.	

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45PM No. 6368

**Further information** Symptoms may be delayed. Hydrogen sulfide, a highly toxic gas, may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. Toxicological properties of this material have not been fully investigated.

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Components	Species	Test Results
Fuels, diesel, no. 2 (CAS 68476-34-6)		
Aquatic		
Acute		
Crustacea	EL50	Daphnia magna 68 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss 65 mg/l, 96 hours
Naphthalene (CAS 91-20-3)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha) 0.95 - 1.62 mg/l, 96 hours
n-Heptane (CAS 142-82-5)		
Aquatic		
Fish	LC50	Western mosquitofish (Gambusia affinis) 4924 mg/l, 96 hours
n-Hexane (CAS 110-54-3)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**

Hexane (Other isomers) (CAS 96-14-0)	3.6
Octane (All isomers) (CAS 111-65-9)	5.18
n-Heptane (CAS 142-82-5)	4.66
n-Hexane (CAS 110-54-3)	3.9
n-Nonane (CAS 111-84-2)	5.46

**Mobility in soil** Not available.

**Other adverse effects** Not available.

**13. Disposal considerations**

**Disposal instructions** Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 °F

**US RCRA Hazardous Waste U List: Reference**

Naphthalene (CAS 91-20-3) U165

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Offer rinsed packaging material to local recycling facilities.

**14. Transport information**

**DOT**

UN number	UN1202
UN proper shipping name	Diesel fuel
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Packing group	III

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

8 / 11

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45PM No. 6368

**Environmental hazards**

Marine pollutant Yes  
 Special precautions for user Read safety instructions, SDS and emergency procedures before handling.  
 Special provisions 144, B1, B3, T2, TP1  
 Packaging exceptions 150  
 Packaging non bulk 203  
 Packaging bulk 242

**IATA**

UN number UN1202  
 UN proper shipping name Diesel fuel  
 Transport hazard class(es)  
     Class 3  
     Subsidiary risk -  
     Label(s) 3  
 Packing group III  
 Environmental hazards Yes  
 ERG Code 3L  
 Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

UN number UN1202  
 UN proper shipping name DIESEL FUEL  
 Transport hazard class(es)  
     Class 3  
     Subsidiary risk -  
     Label(s) 3  
 Packing group III  
 Environmental hazards  
     Marine pollutant Yes  
 EmS F-E, S-E  
 Special precautions for user Read safety instructions, SDS and emergency procedures before handling.  
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable. However, this product is a liquid and if transported in bulk covered under MARPOL 73/78, Annex I.

**15. Regulatory Information**

**US federal regulations**

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)  
 n-Nonane (CAS 111-84-2) 1.0 % One-Time Export Notification only.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hexane (Other isomers) (CAS 98-14-0)	LISTED
Naphthalene (CAS 91-20-3)	LISTED
n-Heptane (CAS 142-82-5)	LISTED
n-Hexane (CAS 110-54-3)	LISTED
n-Nonane (CAS 111-84-2)	LISTED
Octane (All isomers) (CAS 111-65-9)	LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Hazard categories Immediate Hazard - No  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

**DIESEL FUELS**

913579 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Naphthalene	91-20-3	0 - 1

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

- Naphthalene (CAS 91-20-3)
- n-Hexane (CAS 110-54-3)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

- Hexane (Other isomers) (CAS 96-14-0)
- Naphthalene (CAS 91-20-3)
- n-Heptane (CAS 142-82-5)
- n-Hexane (CAS 110-54-3)
- n-Nonane (CAS 111-84-2)
- Octane (All isomers) (CAS 111-85-9)

**US. New Jersey Worker and Community Right-to-Know Act**

- Fuels, diesel, no. 2 (CAS 68476-34-6)
- Naphthalene (CAS 91-20-3)
- n-Heptane (CAS 142-82-5)
- n-Hexane (CAS 110-54-3)
- n-Nonane (CAS 111-84-2)
- Octane (All isomers) (CAS 111-85-9)

**US. Pennsylvania Worker and Community Right-to-Know Law**

- Fuels, diesel, no. 2 (CAS 68476-34-6)
- Hexane (Other isomers) (CAS 96-14-0)
- Naphthalene (CAS 91-20-3)
- n-Heptane (CAS 142-82-5)
- n-Hexane (CAS 110-54-3)
- n-Nonane (CAS 111-84-2)
- Octane (All isomers) (CAS 111-85-9)

**US. Rhode Island RTK**

- Naphthalene (CAS 91-20-3)
- n-Hexane (CAS 110-54-3)

**US. California Proposition 65**

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

- Benzene (CAS 71-43-2)
- Toluene (CAS 108-88-3)

**International Inventories**

Country(s) or region	Inventory name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

**DIESEL FUELS**

813578 Version #: 04 Revision date: 23-May-2014 Print date: 23-May-2014

10 / 11

Prepared by 3E Company

Received Time Jul. 4. 2014 9:45PM No. 6368



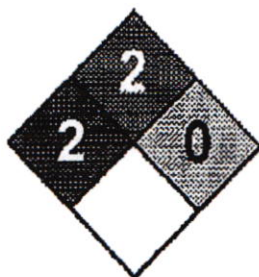
<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On Inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	13-May-2013
<b>Revision date</b>	23-May-2014
<b>Version #</b>	04
<b>Further information</b>	HMS® is a registered trade and service mark of the NPCA.
<b>NFPA Ratings</b>	



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**MSDS**  
**HOTMIX ASPHALT**

# Contractors Materials LLC

## Material Safety Data Sheet: Hot Mix Asphalt

### Section 1: Product Information

**Trade Name:** Hot mix asphalt  
**Producer's Name:** Contractors Materials LLC  
**Address:** 4048 New Castle Avenue  
New Castle, Delaware 19720  
**Phone Number:** 302-655-2119  
**Date Prepared:** October, 2006  
**Prepared by:** K. W. Reynolds

### Section 2: Hazardous Ingredients

Chemical Names	CAS Number	Quantity (Percent)	Formula	Exposure Limits in Air	
				ACGIH TLV <sup>1</sup>	OSHA PEL <sup>2</sup>
Petroleum distillate	88955-27-1	< 5	various	100 ppm	none
Hydrogen sulfide	7783-06-4	< 1	H <sub>2</sub> S	10 ppm	20 ppm
Crystalline silica (aggregate)	14808-60-7	approx. 10*	SiO <sub>2</sub>	0.1 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> %SiO <sub>2</sub> +2

<sup>1</sup> ACGIH TLV: American Conference of Industrial Hygienist Threshold Limit Value (TLV) time-weighted average (TWA)

<sup>2</sup> OSHA PEL: Occupational Safety and Health Association Permissible Exposure Limit for an 8-hour time weighted average

### Section 3: Hazard Identification

**Overview:** Hot asphalt contains aggregates bound by petroleum-hydrocarbon oil. When hot, it may burn skin and emits fumes containing hydrogen sulfide (discussed below).

# Contractors Materials LLC

## Potential Health Effects

### Route of Entry:

**Inhalation:** Yes

**Skin:** Yes

**Ingestion:** No

**Acute and Chronic Effects:** Heated material may cause thermal burns or rash. When cold, no effects expected. Single short-term exposures can cause skin irritation on prolonged or repeated exposure. Inhalation: Vapors containing hydrogen sulfide that may accumulate during storage or transport.

**Signs/symptoms of Overexposure:** Irritation to eyes, skin and lungs after repeated exposure.

**Eyes/skin:** Permanent damage, rash, thermal burns

## Section 4: First Aid Measures

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. Get immediate medical attention.

**Skin contact:** Immediately flush with cool water for at least 15 minutes. Clean skin with waterless hand cleaner. Seek medical aid if irritation persists or develops.

**Inhalation:** Remove from exposure. Seek medical aid if respiratory difficulty persists or develops.

**Swallowed:** Seek medical aid. Do not induce vomiting.

## Section 5: Fire And Explosion

**Flash point:** 200°F

**Flash point method:** COC

**Extinguishing media:** Agents approved for Class B fires (e.g., CO<sub>2</sub>, dry chemical, or foam, water fog).

**Special Fire Fighting Procedures:** Use NIOSH/MSHA approved SCBA and full protective equipment.

**Unusual Fire/Explosion Hazard:** If hydrogen sulfide is present in sufficient quantities, flammable limits can increase to 4–45% by volume and pyrophoric iron compounds can be formed.

# Contractors Materials LLC

## Section 6: Accidental Release Measures

**Spill Response Procedures:** Recover spilled material and reuse.

**Preparing Waste for Disposal:** Disposal must be in accordance with applicable federal, state, and local regulations. Enclosed-controlled incineration recommended, depending on jurisdiction.

## Section 7: Handling & Storage

**Respiratory Protection:** None needed at ambient temperatures. If present in high vapors concentrations or TLV is exceeded, use NIOSH/MSHA approved supplied-air respirator.

**Eye Protection:** Safety glasses with side shields should be worn at all times.

**Gloves:** Nitrobutyl rubber or neoprene.

**Other Clothing:** Long sleeves.

**Work Practices:** Do not smoke.

**Hygiene Practices:** Wash exposed skin with soap and water.

**Other Handling Requirements:** No special measures required.

**Protective Measures During Maintenance of Contaminated Equipment:** No special measures required

**Storage:** Keep adequate ventilation in outside storage. Hydrogen sulfide gas may accumulate in storage tanks and bulk transport compartments containing asphalts.

## Section 8: Physical Properties

**Vapor density (air=1):** Negligible

**Melting point:** N/A

**Specific gravity:** 1.9-2.5

**Boiling point:** N/A

**Solubility in water:** Negligible, < 0.1%

**Evaporation rate:** Negligible

**Vapor pressure:** N/A

**Appearance and odor:** Black semi-solid mixture

## Section 9: Stability and Reactivity

**Reactivity:** Material is stable and will not polymerize. May react with strong oxidizing agents such as chlorates, nitrates and peroxides. At room temperature, hydrogen sulfide may be given off.

**Materials/Conditions to Avoid:** High temperature heating.

# Contractors Materials LLC

**Hazardous Decomposition Products:** Heating this material may produce hydrogen sulfide.

## **Section 10: Toxicological Information**

Hot mix asphalt is a mixture of (sand and stones) aggregates and liquid asphalt oil. The aggregates contain crystalline silica which is a naturally occurring substance found in soil and rock formations. Should the mixture release dust (by cutting, for example), it is possible that the dust may contain a small content of crystalline silica.

Crystalline silica is a naturally occurring substance found in soil and rock formations. Crystalline silica is present in trace amounts in the atmosphere air as particulate. Crystalline silica is one of several crystalline polymorphs (including trydimite, cristobalite) of silicon dioxide. When heated to 870°C, crystalline silica transforms to trydimite, and when heated to 1,470°C it can transform to cristobalite. Chronic or ordinary silicosis is the most common form of silicosis which can occur after many years of exposure to relatively low levels of airborne respirable dust.

Crystalline silica is listed by the National Toxicology Program in a category which may reasonably be anticipated to be a carcinogen, and by the International Agency for Research on Cancer (IARC) as a Group 1 carcinogenic. After years of study, the non-governing IARC concluded in 1997 that there was "sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupation sources." The IARC noted that carcinogenicity was not detected in all industries, and that toxicity may depend on "external factors affecting its biological activity or distribution of its polymorphs."

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**MSDS**  
**HYDRAULIC OIL**

## MATERIAL SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Name:** CAT HYDRAULIC OIL (HYDO) SAE 10W  
**Product Description:** Base Oil and Additives  
**Product Code:** 20202050B020, 478909-00, 971670  
**Intended Use:** Hydraulic/transmission fluid

#### COMPANY IDENTIFICATION

**Supplier:** EXXON MOBIL CORPORATION  
3225 GALLOWS RD.  
FAIRFAX, VA. 22037 USA

**24 Hour Health Emergency:** 609-737-4411  
**Transportation Emergency Phone:** 800-424-9300  
**ExxonMobil Transportation No.:** 281-834-3296  
**Product Technical Information:** 800-662-4525, 800-947-9147  
**MSDS Internet Address:** <http://www.exxon.com>, <http://www.mobil.com>

### SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

#### Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*
ZINC DITHIOPHOSPHATE	68649-42-3	1 - 2.5%

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

### SECTION 3 HAZARDS IDENTIFICATION

This material is not considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

#### POTENTIAL HEALTH EFFECTS

Excessive exposure may result in eye, skin, or respiratory irritation. High-pressure injection under skin may cause serious damage.

**NFPA Hazard ID:** Health: 0 Flammability: 1 Reactivity: 0  
**HMIS Hazard ID:** Health: 0 Flammability: 1 Reactivity: 0



Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 2 of 10

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

## SECTION 4 FIRST AID MEASURES

### INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

### SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

### INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

## SECTION 5 FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight Streams of Water

### FIRE FIGHTING

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Unusual Fire Hazards:** Pressurized mists may form a flammable mixture.

**Hazardous Combustion Products:** Smoke, Fume, Aldehydes, Sulfur oxides, Incomplete combustion products, Oxides of carbon

### FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >200 °C (392 °F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 3 of 10

**Autoignition Temperature:** N/D

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

### PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

### ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

## SECTION 7 HANDLING AND STORAGE

### HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 4 of 10

static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

**Static Accumulator:** This material is a static accumulator.

## STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep away from incompatible materials.

## SECTION 8

## EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits/standards for materials that can be formed when handling this product:** When mists/aerosols can occur the following are recommended: 5 mg/m<sup>3</sup> - ACGIH TLV (inhalable fraction), 5 mg/m<sup>3</sup> - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

## ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

## PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 5 of 10

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

### GENERAL INFORMATION

**Physical State:** Liquid  
**Color:** Amber  
**Odor:** Characteristic  
**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 0.878  
**Flash Point [Method]:** >200°C (392°F) [ASTM D-92]  
**Flammable Limits (Approximate volume % in air):** LEL: 0.9 UEL: 7.0  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** > 316°C (600°F) [Estimated]  
**Vapor Density (Air = 1):** > 2 at 101 kPa [Estimated]  
**Vapor Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** > 3.5 [Estimated]  
**Solubility in Water:** Negligible  
**Viscosity:** 37.7 cSt (37.7 mm<sup>2</sup>/sec) at 40 °C | 6.1 cSt (6.1 mm<sup>2</sup>/sec) at 100°C  
**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/A  
**Pour Point:** -18°C (0°F)  
**DMSO Extract (mineral oil only), IP-346:** < 3 %wt

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
 Revision Date: 12 Oct 2012  
 Page 6 of 10

<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
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**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**HAZARDOUS POLYMERIZATION:** Will not occur.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
-------------------	----------------------------------

**ACUTE TOXICITY**

<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
<b>Inhalation</b>	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.
<b>Ingestion</b>	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
<b>Eye</b>	
Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.

**CHRONIC/OTHER EFFECTS**

**Contains:**

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

Additional information is available by request.

**The following ingredients are cited on the lists below:** None.

- |                               |             |               |
|-------------------------------|-------------|---------------|
| --REGULATORY LISTS SEARCHED-- |             |               |
| 1 = NTP CARC                  | 3 = IARC 1  | 5 = IARC 2B   |
| 2 = NTP SUS                   | 4 = IARC 2A | 6 = OSHA CARC |

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 7 of 10

## SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

### ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

### MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

### PERSISTENCE AND DEGRADABILITY

#### Biodegradation:

Base oil component -- Expected to be inherently biodegradable

### BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

## SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

### DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

### REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
 Revision Date: 12 Oct 2012  
 Page 8 of 10

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
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**LAND (DOT):** Not Regulated for Land Transport

**LAND (TDG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**AIR (IATA):** Not Regulated for Air Transport

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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**OSHA HAZARD COMMUNICATION STANDARD:** When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**Complies with the following national/regional chemical inventory requirements::** AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

**EPCRA SECTION 302:** This material contains no extremely hazardous substances.

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** None.

**SARA (313) TOXIC RELEASE INVENTORY:**

Chemical Name	CAS Number	Typical Value
ZINC DITHIOPHOSPHATE	68649-42-3	1 - 2.5%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
ZINC DITHIOPHOSPHATE	68649-42-3	13, 15, 17

--REGULATORY LISTS SEARCHED--

- |               |                  |                   |             |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2     | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1  | 7 = TSCA 5e      | 12 = CA RTK       | 17 = NJ RTK |
| 3 = ACGIH A2  | 8 = TSCA 6       | 13 = IL RTK       | 18 = PA RTK |
| 4 = OSHA Z    | 9 = TSCA 12b     | 14 = LA RTK       | 19 = RI RTK |
| 5 = TSCA 4    | 10 = CA P65 CARC | 15 = MI 293       |             |

Code key: CARC=Carcinogen; REPRO=Reproductive

## SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

### THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

#### Revision Changes:

- Section 13: Disposal Considerations - Disposal Recommendations was modified.
- Section 10 Stability and Reactivity - Header was modified.
- Section 13: Disposal Recommendations - Note was modified.
- Section 09: Phys/Chem Properties Note was modified.
- Section 09: Boiling Point C(F) was modified.
- Section 09: Flash Point C(F) was modified.
- Section 09: n-Octanol/Water Partition Coefficient was modified.
- Section 08: Comply with applicable regulations phrase was modified.
- Section 08: Personal Protection was modified.
- Section 09: Vapor Pressure was modified.
- Section 07: Handling and Storage - Handling was modified.
- Section 07: Handling and Storage - Storage Phrases was modified.
- Hazard Identification: Health Hazards was modified.
- Section 11: Dermal Lethality Test Data was modified.
- Section 11: Dermal Lethality Test Comment was modified.
- Section 11: Oral Lethality Test Data was modified.
- Section 11: Inhalation Lethality Test Data was modified.
- Section 11: Dermal Irritation Test Data was modified.
- Section 11: Eye Irritation Test Data was modified.
- Section 11: Oral Lethality Test Comment was modified.
- Section 11: Inhalation Irritation Test Data was modified.
- Section 06: Accidental Release - Spill Management - Water was modified.
- Section 09: Relative Density - Header was modified.
- Section 09: Flash Point C(F) was modified.
- Section 09: Viscosity was modified.
- Section 09: Viscosity was modified.
- Section 14: Sea (IMDG) - Header was modified.
- Section 14: Air (IATA) - Header was modified.
- Section 14: LAND (TDG) - Header was modified.
- Section 14: LAND (DOT) - Header was modified.
- Composition: Component table was modified.
- Section 15: List Citation Table - Header was modified.
- Section 14: LAND (DOT) - Default was modified.
- Section 14: LAND (TDG) Default was modified.
- Section 14: Sea (IMDG) - Default was modified.
- Section 14: Air (IATA) - Default was modified.
- Section 15: National Chemical Inventory Listing - Header was modified.
- Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.
- Section 15: National Chemical Inventory Listing was modified.
- Section 15: Community RTK - Header was modified.
- Section 08: Exposure limits/standards was modified.
- Hazard Identification: OSHA - May be Hazardous Statement was modified.
- Section 09: Oxidizing Properties was modified.
- Section 06: Protective Measures was added.
- Section 06: Accidental Release - Protective Measures - Header was added.





Product Name: CAT HYDRAULIC OIL (HYDO) SAE 10W  
Revision Date: 12 Oct 2012  
Page 10 of 10

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Section 09: Vapor Pressure was added.  
Section 15: Special Cases - Header was deleted.  
Section 15: Special Cases Table was deleted.  
Section 15: Inventory - Header was deleted.  
Section 15: Status - Header was deleted.  
Section 08: Exposure Limit Values - Header was deleted.

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PPEC: A

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**MSDS**  
**MORTAR MIX**

# MATERIAL SAFETY DATA SHEET

Date Prepared: November 13, 2003

## 1. PRODUCT/COMPANY IDENTIFICATION

**Product Name:**

**Sakrete® Type S Mortar Mix (White or Gray)**

**Sakrete® Type N Mortar Mix (White or Gray)**

**Emergency Telephone:**

800-424-9300 (Chemtrec) or  
703-527-3887 (Outside USA)

**Manufacturer's Name & Address:**

Bonsal American/an Oldcastle Company  
8201 Arrowridge Blvd.  
Charlotte, NC 28273

**Telephone Number for Information:**

704-525-1621

## 2. EMERGENCY AND FIRST AID

**EMERGENCY INFORMATION:**

Sakrete® Type S and Type N Mortar Mixes are cementitious mixtures of cement, and sand. When in contact with moisture in eyes or on skin, or when mixed with water, it becomes highly caustic (pH > 12) and will damage or burn (as severely as third-degree) the eyes or skin. Inhalation may cause irritation to the moist mucous membranes of the nose, throat and upper respiratory system or may cause or may aggravate certain lung diseases or conditions. Use exposure controls or personal protection methods described in Section 12.

**EYES:**

Immediately flush eye thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

**SKIN:**

Wash skin with cool water and pH-neutral soap or a mild detergent. Seek medical treatment if irritation or inflammation develops or persists. Seek immediate medical treatment in the event of burns.

**INHALATION:**

Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside. Inhalation of large amounts of Mortar Mix require immediate medical attention.

**INGESTION:**

Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

<b>3. COMPOSITION INFORMATION</b>
-----------------------------------

**DESCRIPTION:**

This product consists of a heterogeneous mixture of hydraulic cement and sand. The major compounds are:

3CaO•SiO <sub>2</sub>	Tricalcium Silicate	CAS #12168-85-3
2CaO•SiO <sub>2</sub>	Dicalcium Silicate	CAS #10034-77-2
3CaO•Al <sub>2</sub> O <sub>3</sub>	Tricalcium Aluminate	CAS #12042-78-3
4CaO•Al <sub>2</sub> O <sub>3</sub> •Fe <sub>2</sub> O <sub>3</sub>	Tetracalcium aluminoferrite	CAS #12068-35-8
CaSO <sub>4</sub> •2H <sub>2</sub> O	Calcium Sulfate dihydrate (Gypsum)	CAS #7778-18-9 (CAS #13397-24-5)
SiO <sub>2</sub>	Silica Sand	CAS #14808-60-7

<b>4. HAZARDOUS INGREDIENTS</b>
---------------------------------

COMPONENT	OSHA PEL	ACGIH TLV-TWA	NIOSH REL
----- <b>Hydraulic Cement</b>	----- 5 mg respirable dust/m <sup>3</sup> 15 mg total dust/m <sup>3</sup>	----- 10 mg total dust/m <sup>3</sup>	-----
<b>Calcium sulfate</b> (CAS #7778-18-9) [Gypsum (CAS #13397-24-5)]	5 mg respirable dust/m <sup>3</sup> 15 mg total dust/m <sup>3</sup>	10 mg total dust/m <sup>3</sup>	
<b>Iron oxide</b> (CAS #1309-37-1)	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	
<b>Calcium carbonate</b> (CAS #1317-65-3)	5 mg respirable dust/m <sup>3</sup> 15 mg total dust/m <sup>3</sup>	10 mg total dust/m <sup>3</sup>	
<b>Magnesium oxide</b> (CAS #1309-48-4)	15 mg total dust/m <sup>3</sup>	10 mg total dust/m <sup>3</sup>	
<b>Calcium oxide</b> (CAS #1306-78-8)	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	
<b>Crystalline silica</b> (CAS #14808-60-7)	<u>10 mg of respirable dust/m<sup>3</sup></u> % SiO <sub>2</sub> + 2	0.5 mg respirable quartz/m <sup>3</sup>	0.05 mg respirable quartz dust/m <sup>3</sup>

**TRACE INGREDIENTS:**

Due to the use of substances mined from the earth's crust, trace amounts of naturally occurring, potentially harmful constituents may be detected during chemical analysis.

## 5. HAZARD IDENTIFICATION

<b>POTENTIAL HEALTH EFFECTS:</b>	<p>NOTE: Potential health effects may vary depending upon the duration and degree of exposure. To reduce or eliminate health hazards associated with this product, use exposure controls or personal protection methods as described in Section 12.</p>
<b>EYE CONTACT:</b>	<p>(Acute/Chronic) Exposure to airborne dust may cause immediate or delayed irritation or inflammation of the cornea. Eye contact by larger amounts of dry powder or splashes of wet Mortar Mix may cause effects ranging from moderate eye irritation to chemical burns and blindness.</p>
<b>SKIN CONTACT:</b>	<p>(Acute) Exposure to dry Mortar Mix may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure.</p> <p>(Chronic) Dry Mortar Mix coming in contact with wet skin or exposure to wet Mortar Mix may cause more severe skin effects, including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of chemical (caustic) burns.</p> <p>(Acute/Chronic) Some individuals may exhibit an allergic response upon exposure to Mortar Mix. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers.</p>
<b>INHALATION:</b>	<p>(Acute) Exposure to Mortar Mix may cause irritation to the moist mucous membranes of the nose, throat and upper respiratory system. Pre-existing upper respiratory and lung diseases may be aggravated by inhalation.</p> <p>(Chronic) Inhalation exposure to free crystalline silica may cause delayed lung injury including silicosis, a disabling and potentially fatal lung disease, and/or cause or aggravate other lung diseases or conditions.</p>
<b>INGESTION:</b>	<p>(Acute/Chronic) Internal discomfort or ill effects are possible if large quantities are swallowed.</p>
<b>CARCINOGENIC POTENTIAL:</b>	<p>Mortar Mix is not recognized as a carcinogen by NTP, OSHA, or IARC. However, it may contain trace amounts of heavy metals recognized as carcinogens by these organizations. In addition, it also contains crystalline silica which IARC classifies as a known human carcinogen (Group I). The NTP, in its ninth Annual Report on Carcinogens, classified "silica, crystalline (respirable)" as a</p>

known carcinogen. (See also Sections 4 and 12.)

#### 6. ACCIDENTAL RELEASE MEASURES

Contain material to prevent contamination of soil, surface water or ground water. Use dry clean-up methods that do not disperse dust into the air or entry into surface water. Material can be used if not contaminated. Place in an appropriate labeled container for disposal or use. Avoid inhalation of dust and contact with skin and eyes. Use exposure control and personal protection methods as described in Section 12.

#### 7. PHYSICAL/CHEMICAL DATA

<b>APPEARANCE/ODOR:</b>	Gray, odorless	<b>PHYSICAL STATE:</b>	Solid (Powder mixed with sand.)
<b>BOILING POINT:</b>	> 1000°C	<b>MELTING POINT:</b>	> 1000°C
<b>VAPOR PRESSURE:</b>	Not applicable	<b>VAPOR DENSITY:</b>	Not applicable
<b>pH (IN WATER) (ASTM D 1293-95)</b>	12 to 13	<b>SOLUBILITY IN WATER:</b>	Slightly soluble (0.1% to 1.0%)
<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1.0):</b>	2.5 – 2.8	<b>EVAPORATION RATE:</b>	None

#### 8. FIRE AND EXPLOSION

<b>FLASH POINT:</b>	None	<b>LOWER EXPLOSIVE LIMIT:</b>	None
<b>AUTO IGNITION TEMPERATURE:</b>	Not combustible	<b>UPPER EXPLOSIVE LIMIT:</b>	None
<b>FLAMMABLE LIMITS</b>	Not applicable	<b>SPECIAL FIRE FIGHTING PROCEDURES:</b>	None
<b>EXTINGUISHING MEDIA:</b>	Not combustible	<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b>	None
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>	None		

#### 9. STABILITY AND REACTIVITY DATA

<b>STABILITY:</b>	Product is stable. Keep dry until used.
<b>CONDITIONS TO AVOID:</b>	Unintentional contact with water. Contact with water will result in hydration and produces (caustic) calcium hydroxide.
<b>INCOMPATIBILITY:</b>	Wet Mortar Mix is alkaline. As such, it is incompatible with acids, ammonium salts and aluminum metal.

**HAZARDOUS DECOMPOSITION:** Will not occur.

**HAZARDOUS POLYMERIZATION:** Will not occur.

#### 10. PRECAUTIONS FOR HANDLING AND STORAGE

**HANDLING AND STORAGE** Keep dry until used. Handle and store in a manner so that airborne dust does not exceed applicable exposure limits. Use adequate ventilation and dust collection. Use exposure control and personal protection methods as described in Section 12.

#### 11. TOXICOLOGICAL INFORMATION

See Section 5 for Hazard Identification. No recognized unusual toxicity to plants and animals.

Conditions aggravated by exposure: Eye disease, Skin disorders and Chronic Respiratory conditions.

#### 12. EXPOSURE CONTROLS/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** Use local exhaust or general dilution ventilation to control dust levels below applicable exposure limits. Minimize dispersal of dust into the air.

If local or general ventilation is not adequate to control dust levels below applicable exposure limits or when dust causes irritation or discomfort, use MSHA/NIOSH approved respirators.

**EYE PROTECTION:** Wear safety glasses with side shields or goggles to avoid contact with the eyes. In extremely dusty environments and unpredictable environments, wear tight-fitting unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when handling cement or cement containing products.

**SKIN PROTECTION:** Wear impervious abrasion- and alkali-resistant gloves, boots, long-sleeved shirt, long pants or other protective clothing to prevent skin contact. Promptly remove clothing dusty with dry Mortar Mix or clothing dampened with moisture mixed with Mortar Mix, and launder before re-use. If contact occurs, wash areas contacted by material with pH neutral soap and water.

#### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/ Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

IF THIS MATERIAL AS PACKAGED, BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA FOR A HAZARDOUS WASTE AS DEFINED BY THE ENVIRONMENTAL PROTECTION AGENCY UNDER THE AUTHORITY OF THE RESOURCE CONSERVATION AND RECOVER ACT (40CFR 261), DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

Comply with all applicable local, state and federal regulations for disposal of unusable or contaminated materials. Dispose of packaging/containers according to local, state and federal regulations.

#### 14. TRANSPORTATION DATA

Mortar Mix is not hazardous under U.S. DOT or TDG regulations.

#### 15. OTHER REGULATORY INFORMATION

<b>Status under US OSHA Hazard Communication Rule 29 CFR 1910.1200:</b>	Mortar Mix is considered a hazardous chemical under this regulation and should be included in the employer's hazard communication program.
<b>Status under CERCLA/Superfund, 40 CFR 117 and 302:</b>	Not listed.
<b>Hazard Category under SARA (Title III), Sections 311 and 312:</b>	Mortar Mix qualifies as a hazardous substance with delayed health effects.
<b>Status under SARA (Title III), Section 313:</b>	Not subject to reporting requirements under Section 313.
<b>Status under TSCA (as of May 1997):</b>	Some substances in Mortar Mix are on the TSCA inventory list.
<b>Status under the Federal Hazardous Substances Act:</b>	Mortar Mix is a hazardous substance subject to statutes promulgated under the subject act.
<b>Status under California Proposition 65:</b>	This product contains crystalline silica, a substance known to the State of California to cause cancer. This product also may contain trace amounts of heavy metals known to the State of California to cause cancer, birth defects or other reproductive harm.
<b>Status under Canadian Environmental Protection Act:</b>	Not listed.
<b>Status under Canadian WHMIS:</b>	Mortar Mix is considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations (Class D2A, E - Corrosive Material) and subject to the requirements of WHMIS.

#### 16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. It is the user's obligation to determine the conditions of safe use of this product.





**MSDS**  
**SILICATES**



## SAFETY DATA SHEET

Product: Crushed Stone  
Prepared: 10/28/85 Revised 1/3/95, 2/10/09, 6/12/12

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Granite Gneiss  
CHEMICAL FORMULA: Mixture  
CHEMICAL FAMILY: Silicates  
RECOMMENDED USE: Concrete and Asphalt Aggregate

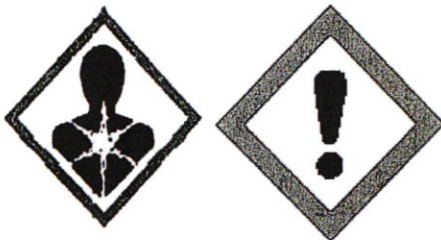
MANUFACTURER: ICM of Maryland, Inc.  
Elk Mills Quarry  
896 Elk Mills Road  
Elk Mills, MD 21920  
(410) 392-3047

EMERGENCY TELEPHONE NUMBER: (410) 392-3047

### SECTION 2 HAZARDS IDENTIFICATION

SIGNAL WORD: Warning  
GHS CLASSIFICATIONS: Acute Toxicity – Category 5  
Skin Irritation – Category 3  
Respiratory Sensitizer – Category 1  
Carcinogenicity – Category 1

GHS LABEL ELEMENTS:



POTENTIAL HEALTH EFFECTS:

Eye Contact: Dust may cause irritation to the eyes by abrasion.

Sensitization:

- a) Skin: Dust may cause irritation to the skin by abrasion.
- b) Respiratory (Ingestion): Small amounts of dust are not expected to cause injury. Large amount may cause stomach pain and blockage.
- c) Respiratory (Acute Inhalation): May cause significant irritation to the nose, throat, and respiratory tract.
- d) Respiratory (Chronic Inhalation): This product contains crystalline silica and prolonged or repeated inhalation can cause silicosis, a serious and potentially fatal lung disease.

PRECAUTIONARY STATEMENT: This substance is typically light brown to salt and pepper colored, ranging in size from powder to boulders. It does not have an odor and is not flammable. Respirable dust particles containing silicon dioxide may be generated by handling granite. Inhalation of excessive dust or particulate matter may cause respiratory problems. Crystalline silica, which is a component of this product, has been designated as a Group I carcinogen by the International Agency for Research on Cancer. Repeated exposure to silica dust may cause pneumoconiosis (silicosis).

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

<u>Components Name</u>	<u>CAS/EC Number</u>	<u>% by weight (approximate)</u>
Plagioclase	N/A	50 - 52
Quartz	14808-60-7	24 - 26
Augite	12172-80-4	14 - 16
Hornblende	12178-42-6	6 - 8
Biotite	110780-72-8	0 - 1

### SECTION 4 FIRST AID MEASURES

EYES: Flush with warm water for 15 minutes. If irritation persists, seek medical attention.

SKIN: Wash with mild soap and water. If irritation persists, seek medical attention.

INGESTION: If conscious, induce vomiting and seek medical attention. Never induce an unconscious person to vomit.

INHALATION: Move to well-ventilated area. If irritation persists, seek medical attention.

### SECTION 5 FIRE FIGHTING MEASURES

FLASHPOINT: Not flammable

FLAMMABLE LIMITS IN AIR: Not flammable

FIRE FIGHTING: Not applicable

FLAMMABLE CLASS: Nonflammable

### SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Avoid contact with eyes and mucous membranes. Be aware that respirable dust particles containing silicon dioxide may be generated by handling granite. Avoid breathing dust particles.

PERSONAL PROTECTIVE EQUIPMENT: A NIOSH-approved respirator will be offered as requested for clean-up staff.

EMERGENCY PROCEDURES: If dust is generated from spilled materials, wetting of the spilled material and/or the use of respiratory personal protective equipment may be required.

REPORTING: In the event of a spill, this material is not subject to notification requirements.

### SECTION 7 HANDLING AND STORAGE

PRECAUTIONS:

Do not climb or stand in piles of this product as it may be unstable.

Avoid contact with eyes and mucous membranes.

Respirable dust particles containing silicon dioxide may be generated by handling granite.

Avoid breathing dust particles.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

EXPOSURE GUIDELINES: See Section 2.  
ENGINEERING CONTROLS: Use exhaust or natural ventilation to keep exposure below appropriate exposure limits. Excessive dust should be reduced by engineering controls such as wetting, ventilation and process enclosure.  
PERSONAL PROTECTIVE EQUIPMENT:  
Respiratory Protection: If engineering controls do not maintain dust concentrations below appropriate exposure limits, a NIOSH-approved respirator must be worn with a particulate filter. Respirator must comply with applicable MSHA or OSHA standards.  
Eye and Face Protection: Wear safety glasses with side shields or goggles when handling this material.  
Skin Protection: No recommended protection.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: Solid.  
APPEARANCE: Light brown to salt and pepper colored.  
ODOR: Odorless.  
pH: Not applicable.  
MELTING/FREEZING POINT: Not applicable.  
BOILING POINT: Not applicable.  
FLASH POINT: Not applicable.  
EVAPORATION RATE: Not applicable.  
FLAMMABILITY: Not applicable.  
VAPOR PRESSURE: Not applicable.  
VAPOR DENSITY: Not applicable.  
RELATIVE DENSITY: Not applicable.  
SPECIFIC GRAVITY: 2.6 - 2.8  
SOLUBILITY: Not soluble.  
PARTIAL COEFFICIENT: Not applicable.  
AUTO-IGNITION TEMPERATURE: Not applicable.  
DECOMPOSITION TEMPERATURE: Not applicable.

**SECTION 10 STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable.  
HAZARDOUS POLYMERIZATION: None.  
POLYMERIZATION: None.  
INCOMPATIBILITY: Strong oxidizing agents. Silica dissolves in hydrofluoric acid and produces silicon tetra fluoride, a corrosive gas.

**SECTION 11 TOXICOLOGICAL INFORMATION**

Primary route of exposure: Inhalation

EYE CONTACT: Dust may cause irritation to the eyes by abrasion.  
SKIN CONTACT: Dust may cause irritation to the skin by abrasion.  
INGESTION: Ingestion of small amounts of dust is not expected to cause injury.  
                  Ingestion of large amounts may cause stomach pain and blockage.  
INHALATION: May cause significant irritation to the nose, throat, and respiratory tract.

Threshold Limit Value for crystalline silica (quartz): 0.025 mg/m<sup>3</sup>

MSHA and OSHA Permissible Exposure Limit:

Crystalline quartz (respirable): PEL-TWA 10 mg/ m<sup>3</sup>/ (%SiO<sub>2</sub> + 2).

Crystobalite: Use ½ the value calculated from the count or mass formulae for quartz.

Tridymite: Use ½ the value calculated fro the formulae for quartz.

Other particulates: TLV = 10 mg/m<sup>3</sup> (inhalable/total particulate, not otherwise classified), TLV = 3 mg/m<sup>3</sup> (respirable particulate, not otherwise classified), OSHA PEL = 15 mg/m<sup>3</sup> (total particulate, not otherwise regulated), OSHA PEL = 5 mg/m<sup>3</sup> (respirable particulate, not otherwise regulated).

Silicosis leads to lung fibrosis and reduced pulmonary function. The severity of silicosis depends on the type and extent of exposure to silica dust particles. Silicosis can become disabling and potentially fatal in later stages. Not all individuals that have silicosis will develop symptoms, but it can appear an extended amount of time after exposure occurs. The most common symptoms of silicosis are as follows: Shortness of breath, coughing, reduction of lung volume, heart enlargement or failure, difficulty breathing, and an increased risk of pulmonary tuberculosis.

#### SECTION 12

#### ECOLOGICAL INFORMATION

Product is mined from the environment and unaltered. No data available.

#### SECTION 13

#### DISPOSAL CONSIDERATIONS

Clean material may be reused. Material contaminated with foreign substance should be disposed of in accordance with local, state, and federal laws and regulations.

#### SECTION 14

#### TRANSPORT INFORMATION

UN NUMBER:	Not applicable.
UN PROPER SHIPPING NAME:	Not applicable.
TRANSPORT HAZARD CLASS:	None.
PACKING GROUP:	None.
MARINE POLLUTANT:	No.

#### SECTION 15

#### REGULATORY INFORMATION

The National Toxicology Program and the IARC include crystalline silica, a component of this product, on their carcinogen lists, but it is not included on the OSHA carcinogen list. In October 1996, an IARC working group reassessing crystalline silica designated it as a human carcinogen (Group 1 Carcinogen).

Inhalation of excessive dust or particulate matter may cause respiratory problems. Repeated exposure to silica dust may cause pneumoconiosis (silicosis).

#### SECTION 16

#### OTHER INFORMATION

Manufacturer Disclaimer: Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user. Appropriate warnings and safe handling procedures should be provided to handlers and users.



5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808

Phone: 302-992-9810

Fax: 302-992-9568

December 3, 2024

State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**RE: Solid Waste Transporter Permit Application  
Driver Training Attachment**

Below is a summary of our Driver Training procedures as requested in the Solid Waste Transporter Permit Application:

- We currently have three (3) CDL drivers employed with us. Only our CDL drivers drive vehicles with a GVWR over 26,000 lbs. and the vehicle is towing a vehicle with a registered, actual or GVWR over 10,000 lbs.
- We hire an independent company to certify all of our non-CDL drivers. A sample certification is attached. Each non-CDL driver is given a yearly Driver Road Test and accompanying physical.
- At our monthly company meetings, we discuss the Spill Control Plan along with our general Safety Plan. A copy of the Delaware Solid Waste Transporter Permit is in each vehicle.

Regards,

**Merit Construction Engineers, Inc.**

  
Vincent Dills

# DRIVER ROAD TEST

§391.31

DRIVER'S NAME Bondowski Erik LAST FIRST MIDDLE INITIAL SOCIAL SECURITY NO.                     

DRIVER'S LICENSE NO. 2017090 STATE DE CLASS D IF CDL, LIST ENDORSEMENTS                     

TYPE OF UNIT DRIVER IS MOST ACCUSTOMED TO                     

TYPE OF UNIT TESTED ON: POWER Straight #16 Ford TRAILER(S)                     

IF PASSENGER CARRIER, TYPE OF BUS                       
SCHOOL BUS, TAXI, MINI-VAN, COACH

## GRADE DRIVER IN THE BELOW AREAS OF OPERATION ON THE BASIS OF (E) excellent; (G) good; (F) fair; (P) poor

AREA OF OPERATION	DAY TEST	NIGHT TEST	AREA OF OPERATION	DAY TEST	NIGHT TEST
	DATE	DATE		DATE	DATE
Pretrip inspection	<u>E</u>		Intersection scanning	<u>E</u>	
Knowledge of emergency equipment demonstrated	<u>E</u>		Downshifting	<u>E</u>	
If combination unit, coupling and uncoupling	<u>E</u>		Braking	<u>E</u>	
Placing vehicle in operation	<u>E</u>		Slowing the vehicle by means other than braking	<u>E</u>	
Use of seat belt	<u>E</u>		Turning the vehicle at an intersection	<u>E</u>	
Acceleration	<u>E</u>		Use of turn signal during turns	<u>E</u>	
Upshifting	<u>E</u>		Avoidance of squeeze situations when turning	<u>E</u>	
Operating the vehicle in traffic	<u>E</u>		Handling uphill operations	<u>E</u>	
Lane holding	<u>E</u>		Handling downhill operations	<u>E</u>	
Multi-lane road maneuvering	<u>E</u>		Recognition and following of road signs and signals	<u>E</u>	
Space management	<u>G</u>		Lighting the road with the use of high/low beams	<u>E</u>	
Distance scanning (following/gap judgement)	<u>E</u>		Courtesy of driver to other motorists and pedestrians	<u>E</u>	
Use of mirrors in traffic	<u>E</u>		Recognition and avoidance of potential unsafe road conditions and traffic problems	<u>E</u>	
Observance of posted speed limits	<u>G</u>		Backing and parking the vehicle	<u>E</u>	
Maneuvering through curves	<u>E</u>		Post trip inspection	<u>E</u>	
Use of turn signals during lane change	<u>E</u>		Overall use of vehicle controls (horn, wipers, clearance lights, etc.)	<u>E</u>	
Use of mirrors during lane change	<u>E</u>		Knowledge and overall use of vehicle safety equipment	<u>E</u>	
Speed adjustment during lane change	<u>E</u>				
Cancelling turn signal after lane change completion	<u>E</u>				
Lane change return	<u>E</u>				

CHECK BOX IF COMMENT SPACE PROVIDED ON BACK OF FORM WAS USED.

This is to certify that the above named driver was given a road test under my supervision on 10/16/24 consisting of approximately 12 miles of driving. DATE

It is my considered opinion that this driver PASSED  DID NOT PASS  with sufficient driving skill to operate safely the type of commercial motor vehicle listed above.

**MERIT CONSTRUCTION ENGINEERS, INC**

COMPANY OF EXAMINER

5700 HICKWOOD HIGHWAY SUITE 201 WILMINGTON, DE 19808  
ADDRESS OF EXAMINER

Thomas Kelly Shop mgr  
SIGNATURE OF EXAMINER TITLE OF EXAMINER

No. 1055 Copyright © 1/04 Reorder from Trans Products 1-800-367-9100 PO Box 898 Milford, DE 19963

### CERTIFICATION OF ROAD TEST

§391.31

This is to certify that DRIVER Erik Bondowski was given a road test under my supervision on this date 10/16/24 consisting of approximately 12 miles of driving.

TYPE OF POWER UNIT: <u>Straight #16 Ford</u>	TRAILER (S):
If passenger carrier, TYPE OF BUS:	
DRIVER'S LICENSE NO. <u>2017090</u>	STATE <u>DE</u>
SIGNATURE OF DRIVER	
SOCIAL SECURITY NUMBER	

BALANCE OF CERTIFICATION ON REVERSE SIDE



**Davis, DaQuan (DNREC)**

---

**From:** Vince Dills <vinced@mce85.com>  
**Sent:** Tuesday, December 10, 2024 10:06 AM  
**To:** WHStranporters  
**Subject:** RE: Delaware Solid Waste Transporter Permit (Merit Construction Engineers)  
**Attachments:** List of Drivers Attachment - Solid Waste Transporter Permit 12-03-2024.pdf

Good Morning DaQuan,

Attached is our list of all driver's names. We apologize for accidentally omitting this from our original submission.

Please contact me with any questions.

Thank you!  
Vince

Respectfully,  
**Merit Construction Engineers, Inc.**  
Vincent Dills  
President  
5700 Kirkwood Highway, Suite 201  
Wilmington, DE 19808  
Office: 302-992-9810  
Mobile: 302-250-6843  
Email: [vinced@mce85.com](mailto:vinced@mce85.com)  
Web: [www.mce85.com](http://www.mce85.com)



**From:** Davis, DaQuan (DNREC) <daquan.davis@delaware.gov> **On Behalf Of** WHStranporters  
**Sent:** Monday, December 9, 2024 3:42 PM  
**To:** Vince Dills <vinced@mce85.com>  
**Subject:** Delaware Solid Waste Transporter Permit (Merit Construction Engineers)

Hello Mr. Dills,

Thank you for submitting your application to renew your Delaware solid waste transporter permit. Upon review, I have found that some information is missing or needs to be updated. Please address the item listed below:

- **Section 14** - Please provide a list of all driver's names; I only found one name in your submittal.

Please provide the information requested above via e-mail within five (5) days.

Thank you,



## DaQuan L. Davis

Environmental Scientist I

**Division of Waste and Hazardous Substances**

☎ 302-739-9403

✉ [daquan.davis@delaware.gov](mailto:daquan.davis@delaware.gov)

📍 89 Kings Hwy SW, Dover, DE 19901

🌐 [dnrec.delaware.gov](http://dnrec.delaware.gov)





5700 Kirkwood Highway, Suite 201 Wilmington, DE 19808

Phone: 302-992-9810

Fax: 302-992-9568

December 3, 2024

State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Waste and Hazardous Substances  
Compliance and Permitting Section

**RE: Solid Waste Transporter Permit Application  
List of Drivers**

Below is a list of our current Drivers as requested in the Solid Waste Transporter Permit Application:

**List of Current Drivers:**

**CDL**

Thaddeus Brown  
Thomas Kelly, Jr.  
Daniel Mitsdarfer

**Non-CDL**

**Date of Latest Driver Road Test**

Erik Bondrowski	10/16/2024
Bryce Brown	10/30/2024
Fausto Garcia	10/23/2024
Dario Garcia Diaz	10/23/2024
Kevin Garcia-J	10/23/2024
Octavio Garcia Vicente	10/23/2024
Tyler Greenhalgh	10/15/2024
Albert Meadows	10/16/2024
Daniel Valencia	10/15/2024

Regards,

**Merit Construction Engineers, Inc.**

Vincent Dills