District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company ConocoPhillips	Contact Robert Bourque
Address 3300 North A Street Midland, TX 79705	Telephone No. 337-962-8672
Facility Name Ruby Federal #20	Facility Type Production Site

Surface Owner BLM	Mineral Owner BLM	API No. 30-025-40894

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	18	175	32E	2310	South Line	910	East Line	Lea

Latitude 32.83 N Longitude 103.80 W NAD83

NATURE OF RELEASE

Type of Release Spill	Volume of Release 20 bbls	Volume Recovered 20 bbls
Source of Release Pump Truck	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Mckbivey BLM/Max Brown OCD	
By Whom? Robert Bourque	Date and Hour July 5, 2017 7:30pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

APPROVED
By Olivia Yu at 7:47 am, Aug 04, 2017

Describe Cause of Problem and Remedial Action Taken.*

Third party company was cleaning their tubs onto location after leaving the site we were drilling on. Once the spill was discovered, we reported it to BLM and awaited direction and permission to begin clean up.

Describe Area Affected and Cleanup Action Taken.*

The site had a 25ft by 100ft area affected by hte spill and a trail approximately 1ft wide leading off location approximately 190ft long leading into were it puddled in a 10ft by 27ft spot. The spill was cleaned by EES. They scraped the affected soil up and took soil samples to be tested to ensure a proper clean had taken place.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: James R Miller	OIL CONSERVATION DIVISION
Printed Name: James R. Miller	Approved by Environmental Specialist: BJ
Title: W.S.E.C. HSE support	Approval Date: 8/4/2017 Expiration Date: xx/xx/xxxx
E-mail Address: james.miller@contractor.cop.com	Conditions of Approval: Provide MSDS of the chemical(s) in the release. Scaled map with soil sample locations — Attached ☐
Date: 04 Aug 2017 Phone: 210 2154484	

* Attach Additional Sheets If Necessary

1RP-4753

Chemical release; waste manifest document as substitute for soil samples.

NMOCD grants closure to 1RP-4753.

August 3, 2017 Sent Via Email: Jorge.marin@bjservices.com

Mr. Jorge Marin
BJ Services
11211 FM 2920 Road
Tomball, Texas 77375

RE: BLUE DYE/SEALBOND/WATER RELEASE – FINAL REPORT

RUBY FEDERAL 20 PADSITE (N 32.50.017 – W 103.47.990)
LOVINGTON, LEA COUNTY, NEW MEXICO

CES PROJECT NO. EM170936X0

Mr. Marin:

Please accept this document as the final report detailing the emergency response and remedial actions taken for the blue dye/sealbond/water release that occurred on July 5, 2017, at the above-referenced location.

INCIDENT BACKGROUND:

On July 6, 2017, at approximately 5:28 p.m. CDT, a represent with BJ Services reported a release of blue dye/sealbond/water that occurred on July 5, 2017 at the above-referenced location. The release was caused when a batch mixer valve was opened and released approximately 924 gallons of the material to the pad site and soil area surrounding the pad site.

EMERGENCY RESPONSE:

On July 6, 2017, at approximately 5:28 p.m. CDT, a representative with BJ Services, Mr. Jorge Marin, retained Cura Emergency Services, L.C. (CES) to manage the environmental cleanup on their behalf. Based on the available information, the CES incident manager scheduled a crew from Emergency Environmental Services (EES) to mobilize to the site on July 7, 2017, to meet with the Conoco Phillips representative, Mr. Robert Bourque, and develop a plan of action to complete all necessary remedial actions.

REGULATORY NOTIFICATION:

The released material did not exceed the reportable quantity and did not impact any sensitive receptors; therefore, no regulatory reporting was necessary.

REMEDIAL ACTIONS:

On July 8, 2017, EES personnel arrived on site and conducted an inspection of the area. Crew members utilized a skid steer to conduct a surface scrape of the well pad to collect all impacted soil from the area. All impacted soil that was collected from the pad site was containerized into

one (1) roll-off box for transport and disposal. Crew members then hand excavated all impacted soil off the well pad site to avoid running over the flow lines that crossed the area with the equipment. All impacted soil was collected and containerized into the roll-off box for transport and disposal. Mr. Bourque, with Conoco Phillips conducted an inspection and advised that the remediation of the area was satisfactory. It was concluded that there is no analytical to be ran due to the non-hazardous nature of the chemicals released. The New Mexico Bureau of Land Management (BLM) and the New Mexico Oil Conservation Division were notified that no clearance samples were to be taken. EES personnel were advised to mobilize at a later date to seed the area utilizing BLM seed mix #2. With the site secured, EES personnel scheduled to return on July 14, 2017, to complete the seeding.

On July 14, 2017, EES personnel arrived on site and met with Mr. Bourque. EES personnel then deployed BLM seed mix #2 to the excavated area. With the site returned to pre-release conditions, EES personnel collected all tools and equipment and demobilized from the site.

WASTE DISPOSAL:

On July 11, 2017, 12 cubic yards of impacted soil was transported using one (1) roll-off container to, and disposed of at, Gandey Marley, Inc. in Roswell, New Mexico (see attached Uniform Hazardous Waste Manifests).

CONCLUSION AND RECOMMENDATIONS:

The impacted soils were excavated and due to the non-hazardous nature of the materials released, no confirmation soil samples were collected from the site. The area was seeded utilizing BLM seed number 2. Based on these results, it appears that the remedial actions were successful and no further action should be required. CES recommends that the incident be closed.

Cura Emergency Services, L.C. appreciates the opportunity to provide you with our professional expertise in this matter. If you have any questions, please feel free to call us at (972) 378-7333.

Respectfully,
Cura Emergency Services, L.C.

Rex L. Waggoner
Project Manager

Attachments: *CES Hazardous Materials Incident Report*
Uniform Hazardous Waste Manifest
Site Photos

Cc: *BJ Services*

Mr. Juan Blanco – juan.blanco@bjservices.com

Mr. Matt McCleary – matt.mccleary@bjservices.com

Ms. Bridget Todd – Bridget.todd@bjservices.com

Mr. Jason Brady – jason.brady@bjservices.com

Mr. Charles Williford – Charles.williford@bjservices.com

New Mexico Environmental Department

Ms. Olyvia Yu – Oil Conservation Department
Olyvia.yu@state.nm.us

Cura Emergency Services, L.C.
6205 Chapel Hill Boulevard,Suite 100
Plano,Texas 75093
Ph. (972) 378-7333 Fax (972) 378-6789

Hazardous Materials Incident Report

Client File No : _____

A. Incident Information :

Incident Manager : Rex Waggoner

Project No. : EM170936X0 - RLW **Project Name :** BJ Services - Lovington - NM

Date of Loss : 7/5/2017 **Time of Loss :** 01:00 AM CDT

Date Reported : 7/6/2017 **Time of Reported :** 05:26 PM CDT

Person Reporting : Jorge Marin **Phone :** (575)631-8835

Driver : _____ **Tractor # :** _____ **Trailer # :** _____

Incident Location Contact : Robert w/ Conoco **Phone :** (337)962-8672

Incident Location : N 32.50.017 - W 103.47.990

City : Lovington **County :** Lea **State :** NM

Incident Description :

On July 6, 2017, at approximately 5:28 p.m. CDT, a represent with BJ Services reported a release of blue dye/sealbond/water that occurred on July 5, 2017 at the above-referenced location. The release was caused when a batch mixer valve was opened and released approximately 924 gallons of the material to the pad site and soil area surrounding the pad site.

Surface Affected : Soil / grass Well Pad

Water Affected : None

Sensitive Report Impact :

Project Number : EM170936X0 - RLW

Client File No :

B . Chemical Information

	Reportable Qnty	Reported Volume	Actual* Volume	Gals /Lbs
Chemical : Dye	NR	<924	<924	Gals
Chemical : Seal Bond	NR	<924	<924	Gals
Chemical :				

C . Health & Safety :

Site Monitoring (If Applicable) :

- **Vapor Concentration (ppm) :** unmetered
- **Available Oxygen (%) :** ambient
- **LEL Exceeded**

PPE :

- **Level A**
- **Level B**
- **Level C**
- **X Level D**
- **MSDS Attached**

Site Special Precations :

No special precautions were noted for this site.

Site Condition :

No complicating conditions existed at the site during cleanup operations.

Injuries :

Explain :

No injuries or fatalities that were a direct result of the released material were reported.

D . Emergency Response :

Initial Emergency Actions :

On July 6, 2017, at approximately 5:28 p.m. CDT, a representative with BJ Services, Mr. Jorge Marin, retained Cura Emergency Services, L. C. (CES) to manage the environmental cleanup on their behalf. Based on the available information, the CES incident manager scheduled a crew from Emergency Environmental Services (EES) to mobilize to the site on July 7, 2017, to meet with the Conoco Phillips representative, Mr. Robert Bourque, and develop a plan of action to complete all necessary remedial actions.

*Unless specified in the Incident Description section, the "Actual Volume" is an estimate, based on the observations of the CES subcontractor

E . Corrective Actions :

Client File No :

Corrective Actions :

On July 8, 2017, EES personnel arrived on site and conducted an inspection of the area. Crew members utilized a skid steer to conduct a surface scrape of the well pad to collect all impacted soil from the area. All impacted soil that was collected from the pad site was containerized into one (1) roll-off box for transport and disposal. Crew members then hand excavated all impacted soil off the well pad site to avoid running over the flow lines that crossed the area with the equipment. All impacted soil was collected and containerized into the roll-off box for transport and disposal. Mr. Bourque, with Conoco Phillips conducted an inspection and advised that the remediation of the area was satisfactory. It was concluded that there is no analytical to be ran due to the non-hazardous nature of the chemicals released. The New Mexico Bureau of Land Management (BLM) and the New Mexico Oil Conservation Division were notified that no clearance samples were to be taken. EES personnel were advised to mobilize at a later date to seed the area utilizing BLM seed mix #2. With the site secured, EES personnel scheduled to return on July 14, 2017, to complete the seeding.

On July 14, 2017, EES personnel arrived on site and met with Mr. Bourque. EES personnel then deployed BLM seed mix #2 to the excavated area. With the site returned to pre-release conditions, EES personnel collected all tools and equipment and demobilized from the site.

F . Responsible Party Information :

Responsible Party : BJ Services **RP Ref # :**

Contact : Mrs. Bridget Todd **Contact :** **X Send Report**

Address : 11211 FM 2920 Road **Phone :** (281)908-9083

City : Tomball **State :** TX **Zip :** 77375 **Fax :**

G . Regulatory Agencies

☐ **Reportable Spill (Check if yes)**

Explain : Pursuant to New Mexico state regulations, this was not a reportable incident.

No Regulatory Notification

Contact : _____ **Contact Date :** _____

Address : _____ **Phone:** _____ **Contact Time:** _____

City : _____ **State :** _____ **Zip:** _____ **Fax :** _____

☐ **Report Required** **Confirmation No :** _____

Note : _____

H . Disposal Facilities

Client File No :

Waste Facility : Gandey Marley, Inc.

Contact Person:

Address : 7200 East Second Street

City : Roswell **State :** NM **Zip:** 88201

Phone : (505) 398-4960 **Ext :** **Fax:**

E-Mail : **Website :**

Disposal Date : 07/11/2017 **Amount :** One (1) CM - 12 CY X **Disposal Document Attached**

I. Contractors

Client File No :

Company : Emergency Environmental Services (EES)

Contact Person: Mike Moore

Address : 2641 Blue Mound Road West, Ste. 106 **Phone :** (817)750-0595

City : Haslet **State :** TX **Zip:** 76052 **Fax:**

E-Mail : mike.moore@eesresponse.com

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number: 015720716 JJK

GENERATOR

5. Generator's Name and Mailing Address
BJ SERVICES
11211 FM 2920 ROAD
TOMBALL, TX 77375
Generator's Phone: 281-908-7085

Generator's Site Address (if different than mailing address)
N32.50.017, W103.47.990
HOBBS NM

6. Transporter 1 Company Name: GWC CONSTRUCTION INC | U.S. EPA ID Number

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address
GMI HANDLING
45 W CROSS ROADS
ROSWELL NM 88203
Facility's Phone: 575-347-0434 | U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. SAND AND BEADS IMPACTED W/ SEALBOND LT AND PYLAKLOR BLUE LT	1	CM	12	Y	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
LOS # EM170136XO - RLW

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: MIKE MOORE ON BEHALF OF | Signature | Month: 7 | Day: 8 | Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JACOB LYDIC | Signature | Month: 7 | Day: 11 | Year: 17

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: J TOLTON | Signature | Month: 07 | Day: 11 | Year: 17 | 4:13 PM

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

CURA
EMERGENCY SERVICES
ENVIRONMENTAL

EM170936X0
Lovington, NM

CURA
EMERGENCY SERVICES
ENVIRONMENTAL

EM170936X0
Lovington, NM

Material Safety Data Sheet

PYLAKLOR BLUE LX-10092 LX-10092

Pylam Products Company, Inc.
2175 East Cedar St
Tempe, AZ 85281
480-929-0070
www.pylamdyes.com

DATE PREPARED: ..... December 1, 2006
DATE REVISED: ..... October 26, 2009
CHEMTREC PHONE#: **800-424-9300**
PRODUCT NUMBER: LX-10092

Section 1 - Chemical Product and Company Identification

PRODUCT NAME: ..... PYLAKLOR BLUE LX-10092
TRADE NAME: ..... Pylaklor Blue LX-10092
SYNONYMS: ..... Pylaklor Blue LX-10092
CHEMICAL FAMILY: ..... Triphenylmethane
CHEMICAL FORMULA: ..... Acid Blue 1 (CAS# 129-17-9)
CAS NUMBER: 129-17-9

Section 2 – Composition Information on Ingredients

HAZARDOUS INGREDIENTS	HAZARDOUS %	TLV (UNITS)	PRODUCT CAS#
Product contains Acid Blue 1, which is on the IARC list.			

TOXIC INGREDIENTS	PERCENT	CAS NUMBER	De Minimis Level
N/A	N/A	N/A	N/A

Section 3 – Hazard Identification

Health	1
Flammability	1
Reactivity	1
Personal Protection	SD

Primary Entry Routes: ..... Ingestion, Inhalation, Skin & Eyes.

ACUTE EFFECTS:
Inhalation: ..... Inhalation may cause respiratory tract discomfort.
Eyes: ..... Solid particles on the eye (powder/dust) may cause pain and be accompanied by irritation.
Skin: ..... N/A.
Ingestion: ..... N/A.
Carcinogenicity: ..... This chemical is on the IARC list.
Chronic Effects: ..... N/A.
Threshold Limit Value: ..... N/A.
Signs & Symptoms of Exposure: ..... Skin may get discolored upon contact with the dye.

Section 4 - First Aid Measures

Inhalation: ..... If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and call a physician.

Material Safety Data Sheet

PYLAKLOR BLUE LX-10092 LX-10092

Eye Contact: ..... Immediately flush eyes with plenty of water for at least fifteen minutes. Get medical attention.
Skin Contact: ..... Wash thoroughly with soap and water.
Ingestion: ..... Seek medical attention immediately. Inducing vomiting is sometimes recommended. Never give fluids to an unconscious person.

Section 5 – Fire-Fighting Measures

Flash Point (F): ..... N/A.
LFL: ..... N/A.
HFL: ..... N/A.
Extinguishing Media: In case of fire use water spray, foam, dry chemical or CO_2.

Unusual Fire/Explosion Hazard: N/A.
Fire Fighting Instructions: ..... Use water spray to cool fire-exposed containers. Dusts, when mixed with the right proportions of air and in a source of ignition, have the potential to be explosive.
Fire Fighting Equipment: ..... Firefighters should be equipped with self-contained breathing apparatus and protective clothing.

Section 6 – Accidental Release Measures

Spills: ..... Spills should be swept up and placed in containers. Spill areas can be washed with water; collect waste water for approved disposal method.
Regulatory Requirements: ..... Follow All OSHA Regulations and Standards (29 CFR 1910.1200)

Section 7 – Handling and Storage

Handling Precautions: ..... In accordance with good industrial practices, handle with care to avoid contact.
Storage Requirements: ..... Keep container tightly closed. Store in a cool, dry place.
Regulatory Requirements: ..... Follow All OSHA Regulations and Standards (29 CFR 1910.1200)

Section 8 – Exposure Controls / Personal Protection

Engineering Controls

Ventilation: ..... Use local ventilation if dusting is a problem.

Administrative Controls

Respiratory Protection: ..... Avoid the inhalation of dusts. When the potential for dusting exists use a NIOSH/MSHA approved respirator with dust filter.
Protective Clothing / Equipment: Wear gloves, coveralls, apron, boots as necessary to prevent skin contact. Wear safety glasses with side-shields (frame goggles).
Safety Stations: ..... Eye wash station should be easily accessible.
Contaminated Equipment: ..... N/A.
Comments: ..... Wash hands after using.

Section 9 – Physical and Chemical Properties

Physical State: ..... Powder.
Appearance & Odor: ..... Dark powder; odorless.
Vapor Pressure ..... N/A.
Vapor Density (Air=1): ..... N/A.
Water Solubility: ..... Soluble.
Other Solubility: ..... N/A.
Boiling Point: ..... N/A.
Freezing Point: ..... N/A.

Material Safety Data Sheet

PYLAKLOR BLUE LX-10092 LX-10092

Formula Weight: ..... N/A.
Specific Gravity: ..... N/A.
% Volatile: ..... N/A.
Evaporation Rate: ..... N/A.
Ph: ..... N/A.

Section 10 – Stability and Reactivity

Stability: ..... Stable.
Polymerization: ..... None expected.
Polymerization to Avoid: ..... None expected.
Chemical Incompatibilities: ..... Oxidizing and reducing agents may destroy color.
Conditions to Avoid: ..... None.
Hazardous Decomposition Products: ..... Carbon monoxide, carbon dioxide, oxides of nitrogen, sulfur, and other potentially toxic fumes.

Section 11- Toxicological Information

Signs and Symptoms of Exposure: ..... Skin may get discolored upon contact with the dye.
Irritation: ..... May be slightly irritating to the eyes & skin on contact.
Acute Oral Effects: ..... N/A.
Chronic Effects: ..... N/A.
Carcinogenicity: ..... This chemical is on the IARC list.
Acute Inhalation Effects: ..... Inhalation may cause respiratory tract discomfort.
LD_{50}: ..... Rat: > 5000 mg/kg.

Section 12 – Ecological Information

Ecotoxicity: ..... N/A.

Section 13 – Disposal Considerations

Disposal: ..... Waste disposal should be in accordance with existing federal, state and local environmental regulations.
Container Cleaning/Disposal .. Disposal should be in accordance with existing federal, state and local environmental regulations.

Section 14 - Transportation Information

DOT Transportation Data

Shipping Name: ..... Non-hazardous powdered dye; Item # 154800.
Hazard Class: ..... N/A.
ID No. / UN Code: ..... N/A.
NA Number: ..... N/A.
Packaging Group: ..... N/A.
Special Provisions: ..... None.
Reportable Quantity: ..... N/A.
Vessel Stowage: ..... N/A.
Emergency Response Page#: . N/A.

Material Safety Data Sheet

PYLAKLOR BLUE LX-10092 LX-10092

Section 15 – Regulatory Information

EPA Regulations

RCRA Hazardous Waste Number: Not regulated.
RCRA Hazardous Waste Classification: N/A.
CERCLA Hazardous Substance: Not regulated.
CERCLA Reportable Quantity (RQ): N/A.
SARA 311/312 Codes: N/A.
SARA Toxic Chemical: N/A.
SARA EHS SARA Title III Section 302: This product does not contain any chemicals regulated under Section 302 as extremely hazardous.
TSCA This product is registered under the regulations of the Toxic Substances Control Act (TSCA).

OSHA Regulations

Air Contaminant : N/A.
OSHA Criteria: No carcinogenicity unless listed in Section 3 of the Material Safety Data Sheet.

REGULATORY INFORMATION		
COMPONENT/ CAS #	CONCENTRATION	STATE CODE

Section 16 – Other Information

Disclaimer Pylam Products Co., Inc. believes all the information and data given is accurate as of the date of preparation and is offered in good faith. This information is given without warranty or representation solely for your consideration, investigation, and verification. Since conditions of use are beyond our control, Pylam Products Co., Inc. expressly disclaims all liability for the use or handling of this product. All risks of use are assumed by end-users.

SAFETY DATA SHEET

Section 1. Identification

Product name : SealBond™ LT

Product code : 488731

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Cement Spacer Additive.

Print date : 7/7/2016

Validation date : 7/7/2016

Version : 1

Supplier's details : Baker Hughes Oilfield Operations
12645 W. Airport Blvd.
Sugar Land, TX 77478
For Product Information/SDSs Call: 281-351-8131

Emergency telephone number (with hours of operation) : CHEMTREC 800-424-9300 (U.S. 24 hour)
(+1)281-276-5400
CANUTEC 613-996-6666 (Canada 24 hours)
CHEMTREC Int'l 01-703-527-3887 (International 24 hour)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : COMBUSTIBLE DUSTS
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (lungs) - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : May form combustible dust concentrations in air.
May cause cancer.
Causes damage to organs through prolonged or repeated exposure. (lungs)

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Supplemental label elements : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.

Hazards not otherwise classified : Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Magnesium oxide	1 - 5	1309-48-4
Crystalline silica: Quartz (SiO2)	1 - 5	14808-60-7

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Get medical attention.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : irritation,redness

Inhalation : respiratory tract irritation,coughing

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 4. First aid measures

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical powder.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Fine dust clouds may form explosive mixtures with air.

Hazardous thermal decomposition products : metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Dike spill area and do not allow product to reach sewage system or surface or ground water. Notify any reportable spill to authorities. (See section 12 for environmental risks and 13 for disposal information.) Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Magnesium oxide	**ACGIH TLV (United States, 4/2014).** TWA: 10 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL 1989 (United States, 3/1989).** TWA: 10 mg/m³ 8 hours. Form: Total particulates **OSHA PEL (United States, 2/2013).** TWA: 15 mg/m³ 8 hours. Form: Total particulates
Crystalline silica: Quartz (SiO2)	**OSHA PEL Z3 (United States, 2/2013).** TWA: 10 MG/M3 / (%SiO2+2), 0 times per shift, 8 hours. Form: Respirable TWA: 250 MPPCF / (%SiO2+5), 0 times per shift, 8 hours. Form: Respirable **ACGIH TLV (United States, 4/2014).**

Section 8. Exposure controls/personal protection

	TWA: 0.025 mg/m³, 0 times per shift, 8 hours. Form: Respirable fraction **OSHA PEL 1989 (United States, 3/1989). Notes: as quartz** TWA: 0.1 mg/m³, (as quartz), 0 times per shift, 8 hours. Form: Respirable dust

Consult local authorities for acceptable exposure limits.

If OSHA permissible exposure levels are shown above they are the OSHA 1989 levels or are from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Hughes recommends that these lower exposure levels be observed as reasonable worker protection.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection : Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles.

Hand protection : Chemical-resistant gloves.

Skin protection : Wear long sleeves to prevent repeated or prolonged skin contact.

Respiratory protection : Use a properly fitted, particulate filter 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.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Powder.]

Color : Pale brown

Odor : None.

Odor threshold : Not available.

pH : Not available.

Melting/freezing point : Not available.

Boiling point : Not available.

Initial Boiling Point : Not available.

Flash point : Not available.

Burning time : Not available.

Burning rate : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Section 9. Physical and chemical properties

Relative density : 1.7 to 1.8

Density : 14.6 (lbs/gal)

Solubility in water : Partially soluble in water.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

VOC : Not available.

Pour Point : Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.

Incompatible materials : None known

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Magnesium oxide Crystalline silica: Quartz (SiO2)	LD50 Oral LD50 Oral	Rat - Male Rat	3870 mg/kg >5000 mg/kg	- -

Irritation/Corrosion

No applicable toxicity data

Sensitization

No applicable toxicity data

Mutagenicity

No applicable toxicity data

Carcinogenicity

Product/ingredient name	OSHA	IARC	NTP
Crystalline silica: Quartz (SiO2)	+	1	Known to be a human carcinogen.

Section 11. Toxicological information

Reproductive toxicity

No applicable toxicity data

Teratogenicity

No applicable toxicity data

Specific target organ toxicity (single exposure)

Not applicable.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline silica: Quartz (SiO2)	Category 1	Inhalation	lungs

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	129000 mg/kg

Section 12. Ecological information

Toxicity

No applicable toxicity data

Persistence and degradability

Not available.

Section 12. Ecological information

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

DOT Reportable Quantity Not applicable.

Marine pollutant Not available.

North-America NAERG : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 12(b) one-time export**: No products were found.

TSCA 12(b) annual export notification: No products were found.

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

United States - Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) :

Section 15. Regulatory information

List name	Status	Ingredient name	Name on list	Conc.
None of the components are listed.				

SARA 302/304 : No products were found.

SARA 311/312

Classification : Delayed (chronic) health hazard

SARA 313

Supplier notification : No products were found.

Canada

Canada (CEPA DSL): : All components are listed or exempted.

Section 16. Other information

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

History

Date of printing : 7/7/2016

Notice to reader

NOTE: The information on this SDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

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