

1. Identification

1.1. Product identifier

Product Identity Star-Det ECO
Alternate Names Drilling Mud Detergent

1.2. Identified uses of the substance or mixture and application method

Intended use Additive
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Drilling Mud Direct, LLC
 6 Inverness Ct. E. Suite 130
 Englewood, CO 80112

Emergency

CHEMTREC (USA) (800) 424-9300
24 hour Emergency Telephone No. International +1-703-527-3887
Customer Service: Drilling Mud Direct, LLC (720) 489-0300

2. Hazard(s) identification

2.1 Classification in accordance with paragraph (d) of §1910.1200

Skin corrosion/irritation	Category 2 - H315
Serious eye damage/eye irritation	Category 1 - H318
Specific Target Organ Toxicity - (repeated exposure)	Category 1 - H373

2.2. Label Elements

Hazard Pictograms



Signal Word

Hazard Statements

Danger
 H315- Causes skin irritation.
 H318- Causes serious eye damage.
 H373- May cause damage to organs through prolonged or repeated exposure.



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Precautionary Statements

[Prevention]

P260- Do not breathe dust/fume/gas/mist/vapors/spray
 P264- Wash face, hands and any exposed skin thoroughly after handling.
 P280- Wear protective gloves/ eye protection/ face protection

[Response]

P302+352- IF ON SKIN: Wash with plenty of soap and water.
 P305+351+338- IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses if present and easy to do - continue rinsing.
 P310- Immediately call a POISON CENTER or doctor / physician.
 P314- Get Medical advice / attention if you feel unwell.
 P321- Specific treatment (see information on this label).
 P332+313- If skin irritation occurs: Get medical advice / attention.
 P362- Take off contaminated clothing and wash before reuse.

[Storage]

No GHS storage statements

[Disposal]

No GHS disposal statements

Contains Substances

Diethanolamine

CAS Number

111-42-2

2.3 Hazards not otherwise classified

Not known

3. Composition/information on ingredients

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Diethanolamine CAS Number: 0000111-42-2	1.0 - 10	Acute Tox. 4;H302 STOT RE 2;H373 Skin Irrit. 2;H315 Eye Dam. 1;H318	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.



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4. First aid measures

4.1. Description of first aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
Skin	Wash with soap and water. Get medical attention if irritation persists.
Ingestion	Under normal conditions, first aid procedures are not required.

4.2. Most important symptoms and effects, both acute and delayed

Breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of Carbon

Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. In the event of fire and/or explosion do not breathe fumes. Cool containers with flooding quantities of water until well after fire is out. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.



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Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ensure adequate ventilation. Ventilate closed spaces before entering them.

Extinguish all flames in the vicinity.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Clean contaminated surface thoroughly.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Avoid heat, sparks, open flames and other ignition sources. When using, do not eat, drink or smoke. Do not use in areas without adequate ventilation. Wash thoroughly after handling. Wear personal protective equipment. Avoid release to the environment. Do not empty into drains. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not taste or swallow. Do not get on skin and clothing.

Keep away from heat and sources of ignition. Store in a closed container away from incompatible materials. Keep away from food and drink. Store in a well-ventilated place. Keep container tightly closed. Store in accordance with local/regional/national/international regulation.

Incompatible materials: Incompatible with strong oxidizing agents and strong acids.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000111-42-2	Diethanolamine	OSHA	No Established Limit
		ACGIH	TWA: 2 mg/m ³ Skin 2B, Revised 2009; 2010,
		NIOSH	TWA 3 ppm (15 mg/m ³)
		Supplier	No Established Limit



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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000111-42-2	Diethanolamine	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;

8.2. Exposure controls

- Respiratory** Give adequate ventilation, have respiratory protection available.
- Eyes** Wear impervious gloves.
- Skin** Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use goggles or face shield if splashing is likely.
- Engineering Controls** Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
- Other Work Practices** Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear Liquid / slight amber
Odor	Slight Amine
Odor threshold	Not determined
pH	Neutral
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	>212F
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.0027-1.0044
Solubility in Water	Not Measured
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured



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Decomposition temperature

Not Measured

Viscosity (cSt)

Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Incompatible with strong oxidizing agents and strong acids.

10.6. Hazardous decomposition products

Oxides of Carbon

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Diethanolamine - (CAS# 111-42-2)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable



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Classification	Category	Hazard Description
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacean, mg/l	ErC50 algae, mg/l
Diethanolamine - (CAS# 111-42-2)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Dispose of according to federal, state and local regulations.



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14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user	No further information		

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D2B E
US EPA Tier II Hazards	<p>Fire: No</p> <p>Sudden Release of Pressure: No</p> <p>Reactive: No</p> <p>Immediate (Acute): Yes</p> <p>Delayed (Chronic): Yes</p>

EPCRA 311/312 Chemicals and RQs (lbs):

Diethanolamine (100.00)

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Diethanolamine

Proposition 65 - Carcinogens (>0.0%):

Diethanolamine

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



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Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Diethanolamine

Pennsylvania RTK Substances (>1%):

Diethanolamine

Canadian Regulations

Canadian DSL Inventory

All components listed on inventory or are exempt.

16. Other information

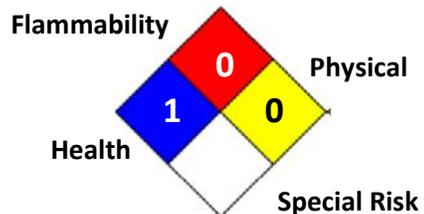
This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product in compliance with applicable Federal, State and local law and regulations. Drilling Mud Direct, LLC makes no warranty of any kind, express or implied, concerning the accuracy of completeness of the information and data herein. The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Drilling Mud Direct, LLC will not be liable for claims relating to any use of this product.

Emergency Overview:

Risk Classification System:

HEALTH	1
FLAMMABILITY	0
PHYSICAL	0
PPE	E



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