

SAFETY DATA SHEET

PENETROL®

Revision Date: 02-Mar-2023

Revision Number: 25

1. Identification

Product identifier

Product Name PENETROL®

Other means of identification

Hazardous Material Number: HM003729

Recommended use of the chemical and restrictions on use

Recommended Use Wetting Agent

Supplier details

Halliburton Energy Services

Av. Amazonas N37-29 y Villalengua Edif., Carrera 7 No. 71-52, Floor 7, Torre B,
Quito, Ecuador

Halliburton Energy Services

Carrera 7 No. 71-52, Floor 7, Torre B,
Bogotá, Colombia

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Global Incident Response Access Code: 334305

Contract Number: 14012

2. Hazards Identification

Classification of the hazardous chemical

Skin Corrosion / Irritation	Category 2 - H315
Serious Eye Damage/Irritation	Category 1 - H318
Acute Aquatic Toxicity	Category 3 - H402
Chronic Aquatic Toxicity	Category 3 - H412

Label Elements

Hazard Pictograms

**Signal Word:**

Danger

Hazard Statements

H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H402 - Harmful to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P264 - Wash face, hands and any exposed skin thoroughly after handling
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P273 - Avoid release to the environment

Response

P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P332 + P313 - If skin irritation occurs: Get medical advice/attention
 P362 + P364 - Take off contaminated clothing and wash before reuse
 P305 + P351 + P338 - 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

**Storage
Disposal**

None
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains**Substances**

Amides, coco, N,N-bis (hydroxyethyl)
 Diethanolamine

CAS Number

68603-42-9
 111-42-2

Other hazards which do not result in classification

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
 This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

3. Composition/Information on Ingredients

Product Classification:

Mixture

Substances	CAS Number	PERCENT (w/w)	GHS Classification
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	10 - 30%	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)
Diethanolamine	111-42-2	1 - 5%	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Corr. 1 (H318) STOT RE 2 (H373) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412)

The exact percentage (concentration) of the composition has been withheld as proprietary.

4. First Aid Measures

Description of first aid measures**Inhalation**

If inhaled, move victim to fresh air and seek medical attention.

Eyes	In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.
Ingestion	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

Most important symptoms and effects, both acute and delayed

Causes serious eye damage. Causes skin irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. Fire-fighting measures**Suitable extinguishing media****Suitable Extinguishing Media**

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

Physicochemical hazards arising from the chemical**Special exposure hazards in a fire**

Decomposition in fire may produce harmful gases.

Special protective equipment and precautions for fire fighters**Special protective equipment for firefighters**

Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

6. Accidental Release Measures**Personal precautions, protective equipment and emergency procedures**

Use appropriate protective equipment. Wear self-contained breathing apparatus in enclosed areas. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.

See Section 8 for additional information.

Environmental precautions

Prevent from entering sewers, waterways, or low areas.

Methods and material for containment and cleaning up

Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Scoop up and remove.

7. Handling and storage**Precautions for safe handling**

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors. Ensure adequate ventilation. Wash hands after use. Launder contaminated clothing before reuse. Use appropriate protective equipment.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use. Product has a shelf life of 36 months.

8. Exposure Controls/Personal Protection**Control parameters****Exposure Limits**

Substances	CAS Number	Venezuela	Colombia	Argentina
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable	Not applicable	Not applicable
Diethanolamine	111-42-2	TWA: 1 mg/m ³	TWA: 1 mg/m ³	TWA: 2 mg/m ³

Appropriate engineering controls**Engineering Controls**

Use in a well ventilated area. Local exhaust ventilation should be used in areas without good cross ventilation.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Respiratory Protection

Not normally needed. But if significant exposures are possible then the following respirator is recommended:
Organic vapor respirator.

Hand Protection

Polyvinylchloride gloves.

Skin Protection

Rubber apron.

Eye Protection

Chemical goggles; also wear a face shield if splashing hazard exists.

Other Precautions

None known.

Environmental Exposure Controls

Do not allow material to contaminate ground water system.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State: Liquid
Odor: Coconut

Color: Green
Odor Threshold: No information available

PropertyValuesRemarks/ - Method**pH:**

9.3

Freezing Point / Range

No data available

Melting Point / Range

No data available

Pour Point / Range

No data available

Boiling Point / Range

157 °C / 315 °F

Flash Point

No data available

Evaporation rate

No data available

Vapor Pressure

< 1 mmHg

Vapor Density

No data available

Specific Gravity

1

Water Solubility

Miscible with water

Solubility in other solvents

No data available

Partition coefficient: n-octanol/water

No data available

Autoignition Temperature

No data available

Decomposition Temperature

No data available

Viscosity

No data available

Explosive Properties

No information available

Oxidizing Properties

No information available

Other information**VOC Content (%)**

No data available

10. Stability and Reactivity

Reactivity

Not expected to be reactive.

Chemical stability

Stable

Possibility of hazardous reactions

Will Not Occur

Conditions to avoid

Avoid contact with oxidizers.

Incompatible materials

Strong acids. Zinc. Copper and copper alloys.

Hazardous decomposition products

Oxides of nitrogen. Carbon monoxide and carbon dioxide.

11. Toxicological Information

Information on possible routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

Most Important Symptoms/Effects

Causes serious eye damage. Causes skin irritation.

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	>5000 mg/kg-bw (rat)	>2000 mg/kg-bw (rabbit)	No data available
Diethanolamine	111-42-2	620 µL/kg (Rat) 1600 mg/kg (Rat)	7640 µL/kg (Rabbit) 13,000 mg/kg (Rabbit)	3.35 mg/L (Rat)

Immediate, delayed and chronic health effects from exposure

Inhalation May cause respiratory irritation. Excessive inhalation causes headache, dizziness, nausea and incoordination.

Eye Contact Causes serious eye damage.

Skin Contact Causes skin irritation.

Ingestion Irritation of the mouth, throat, and stomach. May cause abdominal pain, vomiting, nausea, and diarrhea.

Chronic Effects/Carcinogenicity Prolonged or repeated exposure may cause liver, kidney and blood effects.

Substances	CAS Number	Skin corrosion/irritation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Irritating to skin. (Rabbit)
Diethanolamine	111-42-2	Causes moderate skin irritation. (Rabbit)

Substances	CAS Number	Serious eye damage/irritation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Causes severe eye irritation (Rabbit) (similar substances)
Diethanolamine	111-42-2	Causes severe eye irritation (Rabbit)

Substances	CAS Number	Skin Sensitization
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Did not cause sensitization on laboratory animals (guinea pig)
Diethanolamine	111-42-2	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No information available
Diethanolamine	111-42-2	No information available

Substances	CAS Number	Mutagenic Effects
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	In vitro tests did not show mutagenic effects. Some in vivo tests have shown mutagenic effects.
Diethanolamine	111-42-2	In vivo tests did not show mutagenic effects.

Substances	CAS Number	Carcinogenic Effects
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No data of sufficient quality are available.
Diethanolamine	111-42-2	No data of sufficient quality are available.

Substances	CAS Number	Reproductive toxicity
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Did not show teratogenic effects in animal experiments.
Diethanolamine	111-42-2	Animal testing did not show any effects on fertility. (similar substances) Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No significant toxicity observed in animal studies at concentration requiring classification.
Diethanolamine	111-42-2	No information available

Substances	CAS Number	STOT - repeated exposure
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No data of sufficient quality are available.
Diethanolamine	111-42-2	Causes damage to organs through prolonged or repeated exposure if swallowed: (Liver) (Blood) Kidney

Substances	CAS Number	Aspiration hazard
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not applicable
Diethanolamine	111-42-2	Not applicable

12. Ecological Information

Ecotoxicity

12.1. Toxicity

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	EC50(72h) 2.2 mg/L (Scenedesmus subspicatus)	LC50(96h) 3.6 mg/L (Brachydanio rerio) NOEC(28d)=0.32 mg/L (Oncorhynchus mykiss)	No information available	EC50(48h) 2.25 mg/L (Ceriodaphnia dubia) NOEC(21d) 0.07 mg/L (Daphnia magna)
Diethanolamine	111-42-2	EC50 7.8 mg/L (Desmodesmus subspicatus) EC50 (96h) 2.2 mg/L (growth rate) (Selenastrum capricornutum)	LC50 4460-4980 mg/L (Pimephales promelas) LC50 (96h) 1460 mg/L (Pimephales promelas)	EC20 >1000 mg/L (respiration rate) (activated sludge) EC90 (30min) > 1000 mg/L (Activated sludge)	EC50 (48h) 30.1 mg/L (Ceriodaphnia dubia) EC50 (48h) 55 mg/L (Daphnia magna) NOEC (21d) 0.78 mg/L (Daphnia magna) (Reproduction)

Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Readily biodegradable (92.5% @ 28d)
Diethanolamine	111-42-2	Readily biodegradable (88 - 97% @ 28d)

Bioaccumulative potential

Substances	CAS Number	Bioaccumulation
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	Not Bioaccumulative; BCF=65.4 L/kg (similar substance)
Diethanolamine	111-42-2	-1.71

Mobility in soil

Substances	CAS Number	Mobility
Amides, coco, N,N-bis (hydroxyethyl)	68603-42-9	No information available
Diethanolamine	111-42-2	No information available

Other adverse effects**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

13. Disposal Considerations**Disposal methods****Disposal methods****Contaminated Packaging**

Disposal should be made in accordance with federal, state, and local regulations.

Follow all applicable national or local regulations.

14. Transport Information**Transportation Information**

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IMDG/IMO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

IATA/ICAO

UN Number Not restricted
UN proper shipping name: Not restricted
Transport Hazard Class(es): Not applicable
Packing Group: Not applicable
Environmental Hazards: Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Special precautions for user

None

15. Regulatory Information**International Agreements**

Montreal Protocol - Ozone Depleting Substances: Does not apply.
Stockholm Convention - Persistent Organic Pollutants: Does not apply.
Rotterdam Convention - Prior Informed Consent: Does not apply.
Basel Convention - Hazardous Waste: Does not apply.

NFPA Ratings: Health 2, Flammability 0, Reactivity 0

HMIS Ratings: Health 2, Flammability 0, Physical Hazard 0, PPE: D

16. Other Information

Revision Date: 02-Mar-2023

Revision Note

Update to Format

Key literature references and sources for data

www.ChemADVISOR.com/

NZ CCID

Key or legend to abbreviations and acronyms used in the safety data sheet

bw – body weight
CAS – Chemical Abstracts Service
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
STEL – Short Term Exposure Limit
h - hour
d - day

Disclaimer Statement

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End of Safety Data Sheet