

SAFETY DATA SHEET

Product Trade Name: BARACOR® 95

Revision Date: 17-Apr-2015

Revision Number: 38

1. Identification

1.1. Product Identifier

Product Trade Name: BARACOR® 95
Synonyms: None
Chemical Family: Amine
Internal ID Code: HM003499

1.2 Recommended use and restrictions on use

Application: pH Control
Uses Advised Against: No information available

1.3 Manufacturer's Name and Contact Details

Manufacturer/Supplier: Baroid Fluid Services
Product Service Line of Halliburton
P.O. Box 1675
Houston, TX 77251
Telephone: (281) 871-4000
Emergency Telephone: (281) 575-5000

Prepared By: Chemical Stewardship
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

1.4. Emergency telephone number

Emergency Telephone Number: (281) 575-5000

2. Hazard(s) Identification

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

Acute Oral Toxicity	Category 4 - H302
Acute Toxicity - Dermal	Category 4 - H312
Acute Inhalation Toxicity - Vapors	Category 4 - H332
Skin Corrosion / Irritation	Category 1 B - H314
Serious Eye Damage / Eye Irritation	Category 1 - H318
Specific Target Organ Toxicity - (Single Exposure)	Category 3 - H335
Acute Aquatic Toxicity	Acute 2 - H401
Chronic Aquatic Toxicity	Chronic 3 - H412

2.2. Label Elements

Hazard Pictograms**Signal Word**

Danger

Hazard Statements

H302 - Harmful if swallowed
 H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H401 - Toxic to aquatic life
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash face, hands and any exposed skin thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P273 - Avoid release to the environment
 P280 - Wear protective gloves/eye protection/face protection

Response

P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 P330 - Rinse mouth
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell
 P363 - Wash contaminated clothing before reuse
 P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
 P310 - Immediately call a POISON CENTER or doctor/physician
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up

Disposal

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

Contains Substances

Monoethanolamine

CAS Number

141-43-5

2.3 Hazards not otherwise classified

None known

3. Composition/information on Ingredients

Substances	CAS Number	PERCENT (w/w)	GHS Classification - US
Monoethanolamine	141-43-5	60 - 100%	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1B (H314) Eye Corr. 1 (H318) STOT SE 3 (H335) Aquatic Acute 2 (H401) Aquatic Chronic 3 (H412) Flam. Liq. 4 (H227)

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

4. First-Aid Measures

4.1. 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. Remove contaminated clothing and launder before reuse.
Ingestion	Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical attention.

4.2 Most important symptoms/effects, acute and delayed

Causes severe eye irritation which may damage tissue. Causes severe skin irritation with tissue destruction. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. May cause respiratory irritation.

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

Suitable Extinguishing Media

Water fog, carbon dioxide, foam, dry chemical.

Extinguishing media which must not be used for safety reasons

None known.

5.2 Specific hazards arising from the substance or mixture

Special Exposure Hazards

Use water spray to cool fire exposed surfaces. Closed containers may explode in fire. Decomposition in fire may produce toxic gases. Do not allow runoff to enter waterways.

5.3 Special protective equipment and precautions for fire-fighters

Special Protective Equipment for Fire-Fighters

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

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation. Evacuate all persons from the area.

See Section 8 for additional information

6.2. Environmental precautions

Prevent from entering sewers, waterways, or low areas. Consult local authorities.

6.3. 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

7.1. Precautions for Safe Handling

Handling Precautions

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage Information

Store away from acids. 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

8.1 Occupational Exposure Limits

Substances	CAS Number	OSHA PEL-TWA	ACGIH TLV-TWA
Monoethanolamine	141-43-5	3 ppm	TWA: 3 ppm STEL: 6 ppm

8.2 Appropriate engineering controls

Engineering Controls

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

8.3 Individual protection measures, such as personal protective equipment

Respiratory Protection

If engineering controls and work practices cannot keep exposure below occupational exposure limits or if exposure is unknown, wear a NIOSH certified, European Standard EN 149, AS/NZS 1715:2009, or equivalent respirator when using this product. Selection of and instruction on using all personal protective equipment, including respirators, should be performed by an Industrial Hygienist or other qualified professional.

In high concentrations, supplied air respirator or a self-contained breathing apparatus. (EN137:2006, 2)

Hand Protection

Chemical-resistant protective gloves (EN 374) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Nitrile gloves. (>= 0.35 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Manufacturer's directions for use should be observed because of great diversity of types.

Skin Protection

Rubber apron. Rubber boots.

Eye Protection

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

Other Precautions

Eyewash fountains and safety showers must be easily accessible.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid
Color: Colorless
Odor: Amine
Odor No information available
Threshold:

Property Remarks/ - Method	Values
pH:	12
Freezing Point/Range	-13 °C / 9 °F
Melting Point/Range	No data available
Boiling Point/Range	130 °C / 266 °F
Flash Point	96 °C / 205 °F PMCC
Flammability (solid, gas)	No data available
upper flammability limit	No data available
lower flammability limit	No data available
Evaporation rate	0.1
Vapor Pressure	0.2 mmHg @ 20°C
Vapor Density	2.1 (air = 1)
Specific Gravity	1.02
Water Solubility	Miscible with water
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	-1.9
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No information available
Oxidizing Properties	No information available

9.2. Other information

VOC Content (%) No data available

10. Stability and Reactivity

10.1. Reactivity

Not expected to be reactive.

10.2. Chemical Stability

Stable

10.3. Possibility of Hazardous Reactions

Will Not Occur

10.4. Conditions to Avoid

None anticipated

10.5. Incompatible Materials

Strong acids. Strong oxidizers.

10.6. Hazardous Decomposition Products

Ammonia. Carbon monoxide and carbon dioxide. Hydrocarbons.

11. Toxicological Information

11.1 Information on likely routes of exposure

Principle Route of Exposure Eye or skin contact, inhalation.

11.2 Symptoms related to the physical, chemical and toxicological characteristics

Acute Toxicity

Inhalation Harmful if inhaled. May cause respiratory irritation.
Eye Contact Causes eye burns.
Skin Contact Causes burns. Harmful if absorbed through the skin.
Ingestion Causes burns of the mouth, throat and stomach. Harmful if swallowed.

Chronic Effects/Carcinogenicity No data available to indicate product or components present at greater than 0.1% are chronic health hazards.

11.3 Toxicity data

Toxicology data for the components

Substances	CAS Number	LD50 Oral	LD50 Dermal	LC50 Inhalation
Monoethanolamine	141-43-5	1720 mg/kg (Rat) 1089 mg/kg (Rat)	1025 mg/kg (Rabbit) 1 mL/kg (Rabbit) 2504 mg/kg (Rabbit)	1.48 mg/L (Rat) 4h > Saturated concentration (Rat) 6h

Substances	CAS Number	Skin corrosion/irritation
Monoethanolamine	141-43-5	Skin, rabbit: Corrosive to skin

Substances	CAS Number	Eye damage/irritation
Monoethanolamine	141-43-5	Eye, rabbit: Corrosive to eyes

Substances	CAS Number	Skin Sensitization
Monoethanolamine	141-43-5	Did not cause sensitization on laboratory animals (guinea pig)

Substances	CAS Number	Respiratory Sensitization
Monoethanolamine	141-43-5	No information available

Substances	CAS Number	Mutagenic Effects
Monoethanolamine	141-43-5	In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects

Substances	CAS Number	Carcinogenic Effects
Monoethanolamine	141-43-5	No information available.

Substances	CAS Number	Reproductive toxicity
Monoethanolamine	141-43-5	Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

Substances	CAS Number	STOT - single exposure
Monoethanolamine	141-43-5	May cause respiratory irritation.

Substances	CAS Number	STOT - repeated exposure
Monoethanolamine	141-43-5	No significant toxicity observed in animal studies at concentration requiring classification.

Substances	CAS Number	Aspiration hazard
Monoethanolamine	141-43-5	Not applicable

12. Ecological Information

12.1. Toxicity

Ecotoxicity Effects

Product Ecotoxicity Data

No data available

Substance Ecotoxicity Data

Substances	CAS Number	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to Invertebrates
Monoethanolamine	141-43-5	EC50 (72h) 2.5 mg/L (Pseudokirchnerella subcapitata) EC50 (72h) 24.70 mg/L (Phaeodactylum tricornutum)	LC50 (96h) 349 mg/L (Cypinus carpio) LC50 (96h) 170 mg/L (Carassius auratus) NOEC (30d) 1.2 mg/L (Oryzias latipes) NOEC (14d) > 100 mg/L (Oryzias latipes)	EC10 (30m) >1000 mg/L (Activated sludge, domestic) EC50 (17h) 110 mg/L (Pseudomonas putida) (similar substance)	EC50 (48h) 65 mg/L (Daphnia magna) NOEC (21d) 0.85 mg/L (Daphnia magna) EC50 (72h) 27.57 mg/L (Crassostrea gigas) EC50 (72h) 18.17 mg/L (Mytilus galloprovincialis) EC50 (24h) 43 mg/L (Artemia franciscana)

12.2. Persistence and degradability

Substances	CAS Number	Persistence and Degradability
Monoethanolamine	141-43-5	Readily biodegradable (92% @ 28d)

12.3. Bioaccumulative potential

Substances	CAS Number	Log Pow
Monoethanolamine	141-43-5	Log Pow = -1.91 Log Pow = 2.34

12.4. Mobility in soil

Substances	Mobility
Monoethanolamine	KOC = 0.2725 KOC = 1.167

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1. Waste treatment methods

Disposal Method Disposal should be made in accordance with federal, state, and local regulations.
Contaminated Packaging Follow all applicable national or local regulations.

14. Transport Information

US DOT

UN Number: UN2491
UN Proper Shipping Name: Ethanolamine Solution
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable
NAERG: NAERG 153

US DOT Bulk

DOT (Bulk) Not applicable

Canadian TDG

UN Number: UN2491
UN Proper Shipping Name: Ethanolamine Solution
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable

IMDG/IMO

UN Number: UN2491
UN Proper Shipping Name: Ethanolamine Solution
Transport Hazard Class(es): 8
Packing Group: III
Environmental Hazards: Not applicable
EMS: EmS F-A, S-B

IATA/ICAO

UN Number: UN2491
UN Proper Shipping Name: Ethanolamine Solution
Transport Hazard Class(es): 8
Packing Group: III
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

US Regulations

US TSCA Inventory	All components listed on inventory or are exempt.
EPA SARA Title III Extremely Hazardous Substances	Not applicable
EPA SARA (311,312) Hazard Class	Acute Health Hazard
EPA SARA (313) Chemicals	This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).
EPA CERCLA/Superfund Reportable Spill Quantity	Not applicable.
EPA RCRA Hazardous Waste Classification	If product becomes a waste, it does NOT meet the criteria of a hazardous waste as defined by the US EPA.
California Proposition 65	All components listed do not apply to the California Proposition 65 Regulation.
MA Right-to-Know Law	One or more components listed.
NJ Right-to-Know Law	One or more components listed.
PA Right-to-Know Law	One or more components listed.

Canadian Regulations

Canadian DSL Inventory All components listed on inventory or are exempt.

16. Other information

Preparation Information

Prepared By Chemical Stewardship
Telephone: 1-580-251-4335
e-mail: fdunexchem@halliburton.com

Revision Date: 17-Apr-2015

Reason for Revision SDS sections updated SECTION: 2

Additional information

For additional information on the use of this product, contact your local Halliburton representative.

For questions about the Safety Data Sheet for this or other Halliburton products, contact Chemical Stewardship at 1-580-251-4335.

Key or legend to abbreviations and acronyms

bw – body weight
CAS – Chemical Abstracts Service
EC50 – Effective Concentration 50%
ErC50 – Effective Concentration growth rate 50%
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL50 – Lethal Loading 50%
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PEL – Permissible Exposure Limit
ppm – parts per million
STEL – Short Term Exposure Limit
TWA – Time-Weighted Average
UN – United Nations
h - hour
mg/m³ - milligram/cubic meter
mm - millimeter
mmHg - millimeter mercury
w/w - weight/weight
d - day

Key literature references and sources for data

www.ChemADVISOR.com/

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End of Safety Data Sheet