



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 10/23/2017

Reviewed on 10/23/2017

1 Identification

- **Product Identifier**
- **Trade name: Saponifier #816A**
- **Product Number:** DM-18.54A
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description** ES EG 816/18.54-DM
- **Application of the substance / the mixture:** Cleaner for electronics
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
 EnviroSense, Inc.
 10061 Bubb Road #200
 Cupertino, CA 95014, USA
 Phone: (480) 213-2291
 Fax: (480) 213-2396
 Email: info@envirosense-inc.com
 Web: www.envirosense-inc.com
 Product Information: (408) 213-2291
- **Emergency telephone number:**
 (800) 424-9300 (U.S. and North America)
 (703) 527-3387 (outside U.S. collect calls accepted)
 CCN#: 827152

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Aquatic Acute 3 H402 Harmful to aquatic life.

- **Label elements:**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS05 GHS07

- **Signal word:** Danger

- **Hazard-determining components of labeling:**

Monoethanolamine

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Trade name: Saponifier #816A**· Hazard statements:**

H302+H332 Harmful if swallowed or if inhaled.

H318 Causes serious eye damage.

H402 Harmful to aquatic life.

· Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

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/protective clothing/eye protection/face protection.

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

· Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values.

0 % of the mixture consists of component(s) of unknown toxicity.

· Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme**· NFPA ratings (scale 0 - 4)****· HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

· Hazard(s) not otherwise classified (HNOC): None known**3 Composition/Information on Ingredients****· Non-hazardous components:**

Non-Hazardous Components	40-60%
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· Chemical characterization: Mixtures**· Description:** Mixture of substances listed below with non-hazardous additions.**· Dangerous Components:**

CAS: 141-43-5	Monoethanolamine	40-60%
RTECS: KJ 5775000	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227	

· Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures**· Description of first aid measures:****· General information:** Wash contaminated clothing before reuse.**· After inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.**· After skin contact:**

Remove/Take off immediately all contaminated clothing.

Rinse skin with water/ shower.

· After eye contact:

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

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Trade name: Saponifier #816A**· After swallowing:**

Call a POISON CENTER or doctor/ physician if you feel unwell.
Rinse mouth. Do NOT induce vomiting.

· Information for doctor:**· Most important symptoms and effects, both acute and delayed:** Eye irritation.**· Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures**· Extinguishing media:****· Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Product flash is above 200F, but will burn if ignited. Treat as an oil fire.

· Special hazards arising from the substance or mixture: No further relevant information available.**· Advice for firefighters:****· Protective equipment:**

Mouth respiratory protective device.

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

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

Avoid contact with skin, eyes and clothing.

Ensure adequate ventilation.

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/surface or ground water.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals**· PAC-1:**

141-43-5	Monoethanolamine	6 ppm
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· PAC-2:

141-43-5	Monoethanolamine	170 ppm
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· PAC-3:

141-43-5	Monoethanolamine	1,000 ppm
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7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** Avoid contact with skin and eyes. Avoid spillage.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
Store away from strong acids, strong bases, strong oxidizing agents and strong reducing agents.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed in a dry place. Product is hygroscopic.
- **Information about storage in one common storage facility:**
Provide appropriate exhaust ventilation at places where vapors are formed. For precautions see section 2.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

· **Components with occupational exposure limits:**

141-43-5 Monoethanolamine

PEL	Long-term value: 6 mg/m ³ , 3 ppm
REL	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 8 mg/m ³ , 3 ppm
TLV	Short-term value: 15 mg/m ³ , 6 ppm Long-term value: 7.5 mg/m ³ , 3 ppm

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

- **Material of gloves:** Rubber gloves
- **Penetration time of glove material:** Not applicable.

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Trade name: Saponifier #816A**· Eye protection:**

Safety glasses with side shields

Tightly sealed goggles

· Body protection:

Protective work clothing

· Limitation and supervision of exposure into the environment:

Keep away from drains, surface and ground waters.

Avoid release into the environment.

9 Physical and Chemical Properties**· Information on basic physical and chemical properties****· General Information****· Appearance:****Form:**

Liquid

Color:

Clear, colorless

· Odor:

Slight Amine

· Odor threshold:

Not determined.

· pH-value @ 20 °C (68 °F):

11.5

· Change in condition**Melting point/Melting range:**

Not determined.

Boiling point/Boiling range:

Not determined.

· Flash point:

95.5 °C (203.9 °F)

· Flammability (solid, gaseous):

Not applicable.

· Ignition temperature:

Not applicable

· Decomposition temperature:

Not determined.

· Auto igniting:

Product is not self-igniting.

· Danger of explosion:

Product does not present an explosion hazard.

· Explosion limits:**Lower:**

2.5 Vol %

Upper:

17 Vol %

· Vapor pressure:

Not determined.

· Density @ 20 °C (68 °F):1.0 g/cm³ (8.345 lbs/gal)**· Relative density:**

Not determined.

· Vapor density @ 20 °C (68 °F):2.11 g/cm³ (17.608 lbs/gal)**· Evaporation rate:**

Not determined.

· Solubility in / Miscibility with:**Water:**

Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

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- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 53.0 %
 - VOC content:** 53.00 %
- **Solids content:** 0.0 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**
 - Contact with acids will neutralize alkalinity and lower product's efficiency.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** Strong acids, and oxidizing agents, iron, copper, brass, rubber.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

141-43-5 Monoethanolamine

Oral	LD50	2,050 mg/kg (Rat)
Dermal	LD50	1,000 mg/kg (Rabbit)

- **Primary irritant effect:**
- **On the skin:**
 - Strong caustic effect on skin and mucous membranes.
 - Corrosive effect on skin and mucous membranes.
 - Corrosive to skin and mucous membranes.
- **On the eye:**
 - Strong irritant with the danger of severe eye injury.
 - Corrosive effect.
 - Causes serious eye irritation.
- **Additional toxicological information:**
 - The product shows the following dangers according to internally approved calculation methods for preparations:
 - Harmful
 - Corrosive
 - Irritant
 - Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- **Carcinogenic categories:**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

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· NTP (National Toxicology Program):
None of the ingredients are listed.
· OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packagings**
- **Recommendation:** Dispose of as unused product.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

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· UN "Model Regulation": Non-Regulated Material

15 Regulatory Information

· Safety, health and environmental regulations/legislation specific for the substance or mixture:
· SARA (Superfund Amendments and Reauthorization):

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):
All ingredients are listed or exempt from listing.

· California Proposition 65:

· Chemicals known to cause cancer:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

· New Jersey Right-to-Know List:
All ingredients are listed.

· New Jersey Special Hazardous Substance List:
141-43-5 Monoethanolamine CO, F2

· Pennsylvania Right-to-Know List:
All ingredients are listed.

· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.

· Carcinogenic categories:

· EPA (Environmental Protection Agency):
None of the ingredients are listed.

· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS05 GHS07

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Trade name: Saponifier #816A

- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Monoethanolamine
- **Hazard statements:**
H302+H332 Harmful if swallowed or if inhaled.
H318 Causes serious eye damage.
H402 Harmful to aquatic life.
- **Precautionary statements:**
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
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/protective clothing/eye protection/face protection.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **National regulations:**
None of the ingredients are listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of preparation / last revision:** 10/23/2017 / 7
- **Abbreviations and acronyms:**
ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 4: Flammable liquids – Category 4
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
- *** Data compared to the previous version altered.**

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