



Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Betaine Liquid 36**

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

Recommended use • Nutritional Feed Additive (vitamin)

Details of the supplier of the safety data sheet

Manufacturer • The Amalgamated Sugar Company LLC
1951 S Saturn Way
Boise, Idaho 83709

Telephone (General) • 208-383-6500
• 1-800-255-3582

Emergency telephone number

Manufacturer • 208-383-6594 – Kelly Malone

Section 2: Hazard Identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Not a hazardous substance or mixture

Label elements

OSHA HCS 2012 • Product is subject to labeling requirements of Code of Federal Regulations. (21 CFR §501).

Eye • Product may cause irritation to eyes

Ingestion • Product may cause irritation if ingested

Inhalation • N/A

Skin Contact • May cause skin irritation.

Note • SDS data pertains to the product as delivered in the original shipping container(s). Risks of adverse effects are lessened by following all prescribed safety precautions including the use of proper personal protective equipment.

Other • Product has no hazardous components. (29 CFR §1910.1200)

Europe

According to Regulation (EC) No. 1272/2008

Classification of the substance or mixture

- Regulation (EC) No. 1272/2008**
- This mixture is not classified as hazardous according to Regulation (EC) No. 1272/2008

Label elements

- Additional advice on labeling**
- No label required according to Regulation (EC) No. 1272/2008 [CLP]

- Other hazards**
- No information available

Section 3: Composition/Information on Ingredients

Mixtures

- Chemical Characterization**
- Mixture related information: Betaine (97% Purity), Plant non-sucrose

- Synonyms**
- Betaine
 - 1-Carboxy-N, N, N-trimethylmethan-aminiumhydroxide inner salt
 - Trimethylglycine

Hazardous Components – United States

Chemical Name	Identifiers	%(Weight)	LD50/LC50	Classifications According to Regulation/Directive	Comments
Betaine (min)	107-43-7	36%	NDA	OSHA HCS 2012: No classification Code of Federal Regulations.	NDA
Plant Non-Sucroses	NDA	< 25%	NDA	OSHA HCS 2012: No classification Code of Federal Regulations.	NDA
Water	NDA	< 45%	NDA	OSHA HCS 2012: No classification Code of Federal Regulations.	NDA

Hazardous Components - Europe

Chemical Name	Identifiers	REACH No	%(Weight)	Classifications According to Regulation/Directive	Comments
Betaine	203-490-6	01-2119520508-42	25 - <50%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Full text of H and EUH statements: see section 16
Plant Non-Sucroses	NDA	NDA	25 - <50%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	

Section 4: First Aid Measures

Description of first aid measures

- Eye**
- Flush eyes immediately carefully and thoroughly with eye-bath or water.



- Ingestion**
- Rinse mouth immediately and drink plenty of water unless person is unconscious. Do NOT induce vomiting. Call a physician.
- Inhalation**
- Provide fresh air.
- Skin Contact**
- Wash skin with soap and water. Take off contaminated clothing and wash it before reuse.

Most important symptoms and effects, both acute and delayed

- No information available

Indication of any immediate medical attention and special treatment needed

- Treat symptomatically

Section 5: Fire-Fighting Measures

Extinguishing Media

- Suitable Extinguishing Media**
- Extinguish with water, foam powder, sand.

Special Hazards

- Flammable Properties**
- Non-flammable

- Hazardous Decomposition**
- May decompose above 310° C, forming trimethyl ester, dimethylaminoacetic acid.

- Hazardous Reactivities & Incompatibilities**
- Avoid hot alkaline solutions – may form trimethylamine

Advice for Firefighters

- Co-ordinate fire-fighting measures to the fire surroundings.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Use personal protection equipment

Environmental precautions

- No special environmental measures are necessary. Clean contaminated objects and areas thoroughly observing environmental regulations.

Methods and material for containment and cleaning up

- Spill Cleanup**
- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat recovered material as prescribed in the section on waste disposal.

Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

Section 7: Handling and Storage

Precautions for safe handling

Safe Handling • Avoid direct contact with skin, eyes, and mucous membranes.

Protection against fire and explosion • No special fire protection measures are necessary.

Conditions for safe storage, including any incompatibilities

Storage • Store at ambient temperature. Recommended storage temperature less than 30°C (86°F).

Section 8: Exposure Controls/Personal Protection

Exposure Limits

Control parameters

- To date, no national critical limit values exist.

Exposure Controls



Engineering Controls

- Provide adequate ventilation as well as local exhaust at critical locations.

Protective and Hygiene Measures

- Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

- Wear eye/face protection.

Hand protection

- When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves

Skin protection

- Body protection: not required

Respiratory Protection

- In case of inadequate ventilation wear respiratory protection.

Section 9: Physical and Chemical Properties



Material Description

Appearance	<ul style="list-style-type: none">• Light brown syrup
Physical state	<ul style="list-style-type: none">• Liquid, slightly sticky syrup
Color	<ul style="list-style-type: none">• Light brown
Combustion Point	<ul style="list-style-type: none">• Non-combustible
Density	<ul style="list-style-type: none">• 1.11 – 1.13 g/cm³
Flammability	<ul style="list-style-type: none">• Not applicable
Melting Point	<ul style="list-style-type: none">• Not determined
Molecular Formula	<ul style="list-style-type: none">• C₅H₁₁NO₂
Molecular Weight	<ul style="list-style-type: none">• NA
Odor	<ul style="list-style-type: none">• Characteristic
pH	<ul style="list-style-type: none">• 7.5 – 9.5
Solubility in Water	<ul style="list-style-type: none">• Mixable with water.

Section 10: Stability and Reactivity

Reactivity	<ul style="list-style-type: none">• No hazardous reaction when handled and stored according to provisions.
Chemical stability	<ul style="list-style-type: none">• The product is stable under storage at normal ambient temperatures
Incompatible Materials	<ul style="list-style-type: none">• No know hazardous reactions.
Conditions to avoid	<ul style="list-style-type: none">• None
Hazardous Decomposition	<ul style="list-style-type: none">• May decompose above 310°C forming trimethylester, dimethylaminoacetic acid

Section 11: Toxicological Information

Information on toxicological effects

OSHA HCS 2012	<ul style="list-style-type: none">• This substance is classified as not hazardous according to OSHA 29 CFR 1910.1200 HCS
Regulation (EC) No. 1272/2008	<ul style="list-style-type: none">• This substance is classified as not hazardous according to Regulation (EC) No. 1272/2008 [CLP].
Further information	<ul style="list-style-type: none">• After ingestion gastrointestinal complaints. Eye contact causes eye irritation.

Section 12: Ecological Information

Toxicity

- The product is not ecotoxic

Further information

- Avoid release to the environment

Section 13: Disposal Considerations

General Information

- Dispose in accordance with current local authority regulations

Section 14: Transport Information

General Information

- This product is not classified as a hazardous substance

Labeling

- Not applicable

Section 15: Regulatory Information

Occupational Safety and Health Administration

- OSHA 29 CFR 1910.1200 HCS

Other U.S. Federal Regulations

- Process Safety Management – PSM
- Federal Insecticide, Fungicide, and Rodenticide Act – FIFRA
- Toxic Substances Control Act – TSCA
- The Comprehensive Environmental Response, Compensation, and Liability Act – CERCLA
- The Superfund Amendments and Reauthorization Act – SARA Title III
- Risk Management Plan – RMP
- Resource Conservation and Recovery Act – RCRA
- Clean Water Act – CWA
- Food and Drug Administration – FDA
- United States Department of Agriculture - USDA

The European Parliament and The Council of The European Union

- Regulation (EC) No. 1272/2008 of The European Parliament and of The Council of 16 December 2008
- Annex II of MARPOL73/78
- IBC Code

Other Regulations

- Canadian Dangerous Substance List – DSL
- Australian Inventory of Chemical Substances – AICS
- Japan Existing and New Chemical Substances - ENCS

Section 16: Other Information

Hazard Ratings

National Fire Protection Association (NFPA)

- Fire – 1



- Health – 2
- Reactivity – 0
- Specific Hazard – None

Abbreviations and acronyms

- C – Celsius
- F – Fahrenheit
- g – gram
- g/cm³ – Gram per cubic centimeter
- g/M³ – gram per cubic meter
- g/mol – gram per mole
- mJ - millijoule
- CAS: Chemical Abstracts Service
- CFR: Code of Federal Regulations
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- HCS: Hazard Communication Standard
- LC50: Lethal concentration, 50%
- LD50: Lethal dose, 50%

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To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

The Amalgamated Sugar Company LLC
1951 South Saturn Way
Suite 100
Boise, Idaho 83709