

Liquid Fertilizer 4-12-8

Safety Data Sheet

SECTION 1: Product and company identification

Product name : Liquid Fertilizer 4-12-8
 Use of the substance/mixture : Fertilizer
 Product code : 0230
 Company : Total Solutions
 P.O. Box 240014
 Milwaukee, WI 53224 - USA
 T (414) 354-6417
 Emergency number : Chemtec: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

No additional information available

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove the victim into fresh air. If experiencing respiratory symptoms: Call a poison center or a doctor.
 First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Rinse with water. Wash with water and soap. If skin irritation occurs: Get medical advice/attention.
 First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. If eye irritation persists: Get medical advice/attention.
 First-aid measures after ingestion : Immediately call a poison center or doctor/physician. Drink plenty of water. Never give anything by mouth to an unconscious person.

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

Symptoms/injuries after inhalation : May cause respiratory irritation.
 Symptoms/injuries after skin contact : May cause irritation to skin. Repeated exposure may cause skin dryness or cracking.
 Symptoms/injuries after eye contact : May cause irritation to the eyes.
 Symptoms/injuries after ingestion : May be harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Adapt extinguishing media to the environment.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
 Reactivity : Thermal decomposition may produce oxides of carbon and nitrogen. Toxic gases may formed.

Liquid Fertilizer 4-12-8

Safety Data Sheet

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid breathing (dust, vapor, mist, gas). Clean spills promptly. Large spills: Avoid inhalation of product. Avoid generating mists.

6.1.1. For non-emergency personnel

Protective equipment : Do not enter without an appropriate protective equipment.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Dike the product for recovery.

6.3. Methods and material for containment and cleaning up

For containment : Clean up any spills as soon as possible, using an absorbent material to collect it. Contain released substance, pump into suitable containers.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of reach of children. Keep away from food and drink. Protect from freezing. Keep container closed when not in use. Do not use metal containers. Avoid aluminum.

Storage area : Store in a cool area. Store in a dry area. Store away from heat.

Special rules on packaging : meet the legal requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal protective equipment : Safety glasses. Gloves. Protective clothing.



Materials for protective clothing : solvent-resistant apron and boots. appropriate long gloves (gauntlets).

Hand protection : Protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

Consumer exposure controls : Keep away from food and drink. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Use good personal hygiene practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.
Mixture contains one or more component(s) which have the following odour(s):
Odourless In moist air: Ammonia odour No data available on odour

Odor threshold : No data available

pH : No data available

Liquid Fertilizer 4-12-8

Safety Data Sheet

Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 200 °F
Flash point	: > 200 °F Non-combustible
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.34 g/ml
Solubility	: Miscible with water.
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition may produce oxides of carbon and nitrogen. Toxic gases may formed.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Strong bases. acids. Calcium.

10.6. Hazardous decomposition products

Thermal decomposition may produce : sulfur oxides. Nitrogen oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: May cause irritation to skin. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact	: May cause irritation to the eyes.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

Liquid Fertilizer 4-12-8

Safety Data Sheet

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Empty containers should be thoroughly rinsed with large quantities of clean water. Offer rinsed packaging material to local recycling facilities.

Waste disposal recommendations : Dispose of contents/container to comply with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT : Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain substances known to the state of California to cause cancer and/or reproductive toxicity.

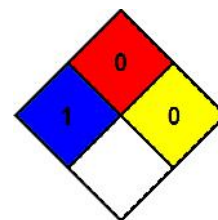
SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.

Distributed By:

Kayline Company * PO Box 603207 * Cleveland, OH 44103 * 216-566-9858 * 800-426-5820 * Fax: 216-566-1228 * www.kaylinecompany.com