

## 1. Identification

**Product identifier** Lesco Greenflo 18-3-6

**Other means of identification**  
**Product code** 32178

**Recommended use** Turf- fertilizer

**Recommended restrictions** Refer to product label.

**Manufacturer/Importer/Supplier/Distributor information**  
**Manufacturer**

**Company name** Brandt Consolidated, Inc.  
**Address** 2935 South Koke Mill Road  
 Springfield, IL 62711  
 United States

**Telephone** Corporate Office 1-217-547-5800

**Website** www.brandt.co

**E-mail** msds@brandt.co

**Contact person** EH&S / Regulatory Department

**Emergency phone number** CHEMTREC (24 hours):  
 USA, Canada, Puerto Rico 1-800-424-9300  
 Virgin Islands 1-800-424-9300  
 International Maritime +1 (703) 527-3887

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Sensitization, skin Category 1B

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Warning

**Hazard statement** May cause an allergic skin reaction.

**Precautionary statement**

**Prevention** Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

**Response** If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**Storage** Store away from incompatible materials.

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

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Urea		57-13-6	20 - < 30*
Tetrapotassium Pyrophosphate		7320-34-5	5 - < 10*
Ferric Ammonium EDTA		21265-50-9	< 1*

Chemical name	Common name and synonyms	CAS number	%
Ammonia		7664-41-7	< 0.1*
Ammonium Hydroxide		1336-21-6	< 0.1*
Other components below reportable levels			60 - < 70

#### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	May cause an allergic skin reaction. Dermatitis. Rash.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Ammonia (CAS 7664-41-7)	PEL	35 mg/m <sup>3</sup>
		50 ppm
Ammonium Hydroxide (CAS 1336-21-6)	PEL	35 mg/m <sup>3</sup>
		50 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Ammonia (CAS 7664-41-7)	STEL	35 ppm
	TWA	25 ppm
Ammonium Hydroxide (CAS 1336-21-6)	STEL	35 ppm
	TWA	25 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Ammonia (CAS 7664-41-7)	STEL	27 mg/m <sup>3</sup>
		35 ppm
	TWA	18 mg/m <sup>3</sup>
Ammonium Hydroxide (CAS 1336-21-6)	STEL	27 mg/m <sup>3</sup>
		35 ppm
	TWA	18 mg/m <sup>3</sup>
		25 ppm

**US. Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value	Form
Urea (CAS 57-13-6)	TWA	10 mg/m <sup>3</sup>	Total particulate.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation should be used. 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. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles). Face shield is recommended.

**Skin protection****Hand protection**

Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**9. Physical and chemical properties****Appearance**

Liquid.

**Physical state**

Liquid.

**Form**

Liquid.

**Color**

Amber

**Odor**

Not available.

<b>Odor threshold</b>	Not available.
<b>pH</b>	10.5
<b>Melting point/freezing point</b>	270.86 °F (132.7 °C) estimated
<b>Initial boiling point and boiling range</b>	212 °F (100 °C) estimated
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.00001 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.249 g/cm <sup>3</sup> (typical)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	47.29 % estimated
<b>Pounds per gallon</b>	10.42 lb/gal (typical)
<b>VOC</b>	12.05 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	May cause an allergic skin reaction.
<b>Eye contact</b>	Knowledge about health hazard is incomplete.
<b>Ingestion</b>	Knowledge about health hazard is incomplete.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Not known.

Product	Species	Test Results
Lesco Greenflo 18-3-6		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	54290 mg/kg
<b>Oral</b>		
LD50	Rabbit	13850 mg/kg
Components	Species	Test Results

Ammonia (CAS 7664-41-7)

**Acute**

**Inhalation**

LC50	Mouse	3.36 mg/l, 1 Hours
		3.31 mg/l, 2 Hours
Rat		4000 ppm, 1 Hours
		2000 ppm, 4 Hours
		5.1 mg/l, 1 Hours

**Oral**

LD50	Rat	350 mg/kg
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Ammonium Hydroxide (CAS 1336-21-6)

**Acute**

**Oral**

LD50	Rat	350 mg/kg
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Urea (CAS 57-13-6)

**Acute**

**Oral**

LD50	Rat	8471 mg/kg
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**Skin corrosion/irritation** Due to partial or complete lack of data the classification is not possible.

**Serious eye damage/eye irritation** Due to partial or complete lack of data the classification is not possible.

**Respiratory or skin sensitization**

**Respiratory sensitization** Due to partial or complete lack of data the classification is not possible.

**Skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** Due to partial or complete lack of data the classification is not possible.

**Carcinogenicity** Due to partial or complete lack of data the classification is not possible.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.

**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.

**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.

**Chronic effects** Prolonged inhalation may be harmful.

**12. Ecological information**

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species		Test Results
Lesco Greenflo 18-3-6			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	20807.0547 mg/l, 48 hours estimated
Fish	LC50	Fish	31552.9609 mg/l, 96 hours estimated
Components	Species		Test Results
Ammonia (CAS 7664-41-7)			
<b>Aquatic</b>			
Fish	LC50	Chinook salmon ( <i>Oncorhynchus tshawytscha</i> )	0.43 - 0.47 mg/l, 96 hours
Ammonium Hydroxide (CAS 1336-21-6)			
<b>Aquatic</b>			
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	15 mg/l, 96 hours
Urea (CAS 57-13-6)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	3910 mg/l, 48 hours
Fish	LC50	Carp ( <i>Leuciscus idus melanotus</i> )	> 10000 mg/l, 48 hours
		Guppy ( <i>Poecilia reticulata</i> )	16200 - 18300 mg/l, 96 hours
		Harlequinfish, red rasbora ( <i>Rasbora heteromorpha</i> )	12000 mg/l, 96 hours
		Mozambique tilapia ( <i>Tilapia mossambica</i> )	590 - 730 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

Urea -2.11

**Mobility in soil** No data available.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information**

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Ammonia (CAS 7664-41-7) Listed.

Ammonium Hydroxide (CAS 1336-21-6) Listed.

**SARA 304 Emergency release notification**

AMMONIA (CAS 7664-41-7) 100 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Ammonia	7664-41-7	100	500		

**SARA 311/312 Hazardous chemical** Yes**Classified hazard categories** Respiratory or skin sensitization**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Ammonia (CAS 7664-41-7)

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****California Proposition 65**WARNING: This product can expose you to chemicals including arsenic, cadmium, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Ammonia (CAS 7664-41-7)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 08-05-2020

**Version #** 01

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of Manufacturer's knowledge, information and belief at the date of its publication; however, it is provided only as a guidance for safe handling, use, processing, storage, transportation, disposal and release of the Product. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made with respect to the Product or the information provided herein, or that the Product or information herein may be used without infringing the intellectual property rights of others. The information provided in this Safety Data Sheet relates only to the specific Product designated and may not be valid if the Product is used in combination with other materials or in any other process, unless specified herein. The user assumes all risk and liability for loss, injury, damage or expense due to any use, handling, storage or disposal of the Product, and Manufacturer recommends that the user conducts its own tests of the Product to determine suitability of the Product for user's particular use.