SAFETY DATA SHEET



1. Identification

Product identifier PERFECTION PRO PERENNIAL 14-18-12

Other means of identification None.

Recommended use Turf & Ornamental Product - Plant Nutrition

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Wilbur-Ellis Company LLC
Address 16300 Christensen Rd. Ste 135

Tukwila, WA 98188

United States

Telephone Branded Products (800) 500-1698

Information

E-mail SDS@wilburellis.com

Emergency phone number Chemtrec - Domestic (800) 424-9300

Chemtrec - International +1 703-741-5970

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information The ingredients used to produce this material contain crystalline silica in a form not-respirable or

carcinogenic due to its manufacturing method and structure. Do not attempt to grind or mill this

product

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Monoammonium Phosphate		7722-76-1	30 - < 40
Ammonium Sulfate		7783-20-2	10 - < 20
Potassium Chloride		7447-40-7	10 - < 20
Urea		57-13-6	10 - < 20
Calcium Carbonate		471-34-1	5 - < 10
Gypsum		13397-24-5	1 - < 3
Iron Oxide		1309-37-1	1 - < 3
Magnesium Oxide		1309-48-4	1 - < 3
Other components below reportable	levels		5 - < 10

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SDS US

Composition comments

Occupational Exposure Limits for impurities, if present, are listed in Section 8.

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact

Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important

Dusts may irritate the respiratory tract, skin and eyes.

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters Fire fighting

equipment/instructions

Use water spray to cool unopened containers.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

During fire, gases hazardous to health may be formed.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store in a well-ventilated place. 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	Туре	Value	Form
Calcium Carbonate (CAS 471-34-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Gypsum (CAS 13397-24-5)	PEL	5 mg/m3	Respirable fraction.

Components	Туре	Value	Form	
		15 mg/m3	Total dust.	
Iron Oxide (CAS 1309-37-1)	PEL	10 mg/m3	Fume.	
Magnesium Oxide (CAS 1309-48-4)	PEL	15 mg/m3	Total particulate.	
US. OSHA Table Z-3 (29 CFI Components	R 1910.1000) Type	Value	Form	
Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.	
		15 mg/m3	Total dust.	
		50 mppcf	Total dust.	
		15 mppcf	Respirable fraction.	
Magnesium Oxide (CAS 1309-48-4)	TWA	5 mg/m3	Respirable fraction.	
1000-40-4)		15 mg/m3	Total dust.	
		50 mppcf	Total dust.	
		15 mppcf	Respirable fraction.	
US. ACGIH Threshold Limit Components	Values Type	Value	Form	
Gypsum (CAS 13397-24-5)	TWA	10 mg/m3	Inhalable fraction.	
Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.	
Magnesium Oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.	
US. NIOSH: Pocket Guide to			.	
Components	Туре	Value	Form	
Calcium Carbonate (CAS 471-34-1)	TWA	5 mg/m3	Respirable.	
		10 mg/m3	Total	
Gypsum (CAS 13397-24-5)	TWA	5 mg/m3	Respirable.	
		10 mg/m3	Total	
Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Dust and fume.	
US. Workplace Environmen Components	tal Exposure Level (WEEL) Guides Type	Value	Form	
Urea (CAS 57-13-6)	TWA	10 mg/m3	Total particulate.	
ogical limit values	No biological exposure limits noted t	or the ingredient(s).		
ropriate engineering trols	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. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposur below the recommended exposure limits.			
	such as personal protective equipm			
Eye/face protection	Wear safety glasses with side shield	s (or goggles).		
Skin protection Hand protection	Wear appropriate chemical resistant	gloves.		
Other	Wear suitable protective clothing.			
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.			
	exceeding the exposure limits.			

Wear appropriate thermal protective clothing, when necessary.

Thermal hazards

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.

9. Physical and chemical properties

Appearance Granular Blend

Physical stateSolid.FormPowder.

Color Various colored granules

Odor Odorless.
Odor threshold Not available.
pH Not available.

Melting point/freezing point 270.86 °F (132.7 °C) estimated

Initial boiling point and boiling

range

Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Density 1.86 g/cm3 estimated

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 1.86 estimated

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

Conditions to avoid

reactions

No dangerous reaction known under conditions of normal use.

Avoid temperatures exceeding the decomposition temperature. Contact with incompatible

materials.

Incompatible materials Acids. Fluorine.

Hazardous decomposition

products

Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

11. Toxicological information

Information on likely routes of exposure

Inhalation Dust may irritate respiratory system. Prolonged inhalation may be harmful.

Skin contact Dust or powder may irritate the skin.

Dust may irritate the eyes. Eye contact

Expected to be a low ingestion hazard. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Acute toxicity Not known.

Product Test Results Species

PERFECTION PRO PERENNIAL 14-18-12

Acute Dermal

Dust

LD50 Rabbit > 2000 mg/kg, 24 hours

Oral

Dust

LD50 Rat > 5000 mg/kg Components **Species Test Results**

Ammonium Sulfate (CAS 7783-20-2)

Acute

Dermal

LD50 Rat > 2000 mg/kg

Oral

LD50 Rat 4250 mg/kg

Calcium Carbonate (CAS 471-34-1)

Acute Dermal

LD50 Rat > 2000 mg/kg, 24 Hours

Oral LD50

Rat > 2000 mg/kg

Gypsum (CAS 13397-24-5)

Acute

Inhalation

LC50 Rat > 20 mg/l, 4 Hours

Oral

LD50

Rat > 1581 mg/kg

Iron Oxide (CAS 1309-37-1)

<u>Acute</u> Oral

LD50 Rat > 10000 mg/kg

Monoammonium Phosphate (CAS 7722-76-1)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg, 24 Hours

Rat > 5000 mg/kg, 24 Hours

Inhalation

LC50 Rat > 5 mg/l, 4 Hours

Oral

LD50 Rat 3252 mg/kg

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Components Species Test Results

Potassium Chloride (CAS 7447-40-7)

Acute Oral

LD50 Rat 3020 mg/kg

Urea (CAS 57-13-6)

<u>Acute</u> Oral

LD50 Mouse 13000 mg/kg

Rat 15000 mg/kg

Other

LD50 Mouse 9200 mg/kg

Rat 8200 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Iron Oxide (CAS 1309-37-1) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

Further information This product has no known adverse effect on human health.

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.

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

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site.

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

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

the IBC Code

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and Not applicable.

15. Regulatory information

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are listed on or exempted from the U.S. EPA TSCA Inventory List.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

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

Ammonium Sulfate (CAS 7783-20-2)

1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Nο

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
AMMONIA (INCLUDES ANHYDROUS AMMON	IA 7722-76-1	30 - < 40	
AND AQUEOUS AMMONIA FROM WATER			
DISSOCIABLE AMMONIUM SALTS AND OTHE	R		
SOURCES; 10% OF TOTAL AQUEOUS AMMO	NIA		
IS REPORTABLE UNDER THIS LISTING)			
AMMONIA (INCLUDES ANHYDROUS AMMONI	IA 7783-20-2	10 - < 20	
AND AQUEOUS AMMONIA FROM WATER			
DISSOCIABLE AMMONIUM SALTS AND OTHE	:R		
SOURCES; 10% OF TOTAL AQUEOUS AMMO	NIA		
IS REPORTABLE UNDER THIS LISTING)			

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)

Not regulated.

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

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US state regulations

California Proposition 65



WARNING: This product can expose you to cadmium, which is 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.

Cadmium (CAS 7440-43-9)

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Magnesium Oxide (CAS 1309-48-4)

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

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Health: 1 **NFPA** ratings

Flammability: 0 Instability: 0

NFPA ratings



Disclaimer

This information was developed from information on the constituent materials. No warranty is expressed or implied regarding the completeness or continuing accuracy of the information contained herein, and the manufacturer disclaims all liability for reliance thereon. The user should satisfy himself that he has all current data relevant to his particular use.

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