

# SAFETY DATA SHEET



## 1. Identification

<b>Product identifier</b>	<b>Perfection Mini Super 90 31-3-3</b>		
<b>Other means of identification</b>	None.		
<b>Recommended use</b>	Turf & Ornamental Product - Plant Nutrition		
<b>Recommended restrictions</b>	None known.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Manufacturer</b>			
<b>Company name</b>	Wilbur-Ellis Company LLC		
<b>Address</b>	3300 S. Parker Rd Ste. 500 Aurora, CO 80014 United States		
<b>Telephone</b>	Branded Products Information	(800) 500-1698	
<b>E-mail</b>	SDS@wilburellis.com		
<b>Emergency phone number</b>	Chemtrec - Domestic	(800) 424-9300	
	Chemtrec - International	+1 703-741-5970	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Not classified.

### Label elements

<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Urea		57-13-6	60 - < 70
Ammonium Sulfate		7783-20-2	10 - < 20
Iron Oxysulfate		Not Available	5 - < 10
Monoammonium Phosphate		7722-76-1	5 - < 10
Potassium Sulfate		7778-80-5	5 - < 10
Other components below reportable levels			3 - < 5

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

## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.

<b>Eye contact</b>	Do not rub eyes. 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>	Dusts may irritate the respiratory tract, skin and eyes.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 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>	Use water spray to cool unopened containers.
<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. 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.
<b>Methods and materials for containment and cleaning up</b>	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.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping.
<b>Conditions for safe storage, including any incompatibilities</b>	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	Type	Value	Form
Iron Oxysulfate	PEL	10 mg/m <sup>3</sup>	Fume.

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Iron Oxysulfate	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Iron Oxysulfate	TWA	5 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Iron Oxysulfate	TWA	5 mg/m3	Dust and fume.

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

Components	Type	Value	Form
Urea (CAS 57-13-6)	TWA	10 mg/m3	Total particulate.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	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 exposures below the recommended exposure limits.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	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**

<b>Appearance</b>	Granular Blend
<b>Physical state</b>	Solid.
<b>Form</b>	Solid Granules
<b>Color</b>	Various colored granules
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<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>	Not available.
<b>Vapor density</b>	Not available.

<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	80 %
<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.

## 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>	Avoid temperatures exceeding the decomposition temperature. 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>	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
<b>Skin contact</b>	Dust or powder may irritate the skin.
<b>Eye contact</b>	Dust may irritate the eyes.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

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

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
Perfection Mini Super 90 31-3-3		
<b>Acute</b>		
<b>Dermal</b>		
<i>Solid</i>		
LD50	Rabbit	> 2000 mg/kg, 24 hours
<b>Oral</b>		
<i>Solid</i>		
LD50	Rat	> 10000 mg/kg
Components	Species	Test Results

Ammonium Sulfate (CAS 7783-20-2)

#### **Acute**

##### **Dermal**

LD50	Mouse	> 2000 mg/kg
	Rat	> 2000 mg/kg

##### **Oral**

LD50	Mouse	> 2000 mg/kg
	Rat	4250 mg/kg

Components	Species	Test Results
Iron Oxysulfate		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Rat	> 10000 mg/kg
Monoammonium Phosphate (CAS 7722-76-1)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
	Rat	> 5000 mg/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 5 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	3252 mg/kg
Potassium Sulfate (CAS 7778-80-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
Urea (CAS 57-13-6)		
<b><u>Acute</u></b>		
<b>Oral</b>		
LD50	Mouse	13000 mg/kg
	Rat	15000 mg/kg
<b>Other</b>		
LD50	Mouse	9200 mg/kg
	Rat	8200 mg/kg
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.	
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Iron Oxysulfate (CAS Not Available)	3 Not classifiable as to carcinogenicity to humans.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
	Not listed.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
	Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	
<b>Further information</b>	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.

Product	Species	Test Results	
Perfection Mini Super 90 31-3-3			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	324.2037 mg/l, 48 hours estimated
Fish	LC50	Fish	452.4872 mg/l, 96 hours estimated

**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 instructions** Collect 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

**DOT**  
Not regulated as dangerous goods.  
**IATA**  
Not regulated as dangerous goods.  
**IMDG**  
Not regulated as dangerous goods.  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** 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)** One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

**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)**  
**SARA 302 Extremely hazardous substance**  
Not listed.  
**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

<b>Chemical name</b>	<b>CAS number</b>	<b>% by wt.</b>
AMMONIA (INCLUDES ANHYDROUS AMMONIA AND AQUEOUS AMMONIA FROM WATER DISSOCIABLE AMMONIUM SALTS AND OTHER SOURCES; 10% OF TOTAL AQUEOUS AMMONIA IS REPORTABLE UNDER THIS LISTING)	7722-76-1	5 - < 10
AMMONIA (INCLUDES ANHYDROUS AMMONIA AND AQUEOUS AMMONIA FROM WATER DISSOCIABLE AMMONIUM SALTS AND OTHER SOURCES; 10% OF TOTAL AQUEOUS AMMONIA IS REPORTABLE UNDER THIS LISTING)	7783-20-2	10 - < 20

**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 (SDWA)** Not regulated.**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](http://www.P65Warnings.ca.gov).

Cadmium (CAS 7440-43-9)

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

**Issue date** 02-24-2021  
**Revision date** 03-01-2021  
**Version #** 02  
**NFPA ratings** Health: 1  
Flammability: 0  
Instability: 0

**NFPA ratings****Disclaimer**

Not available.