

Safety Data Sheet according to OSHA-GHS (29 CFR part 1910.1200 HCS 2012)

1. PRODUCT AND COMPANY IDENTIFICATION**Product Name:** 20-5-30**Date of issue:** March 2015

Product identifier: 20-5-30 Soluble Fertilizer
Recommended uses: Fertilizer end-use, preparation of fertilizers mixtures.
Dry fertilizer for mixing with water for foliar and soil applications.
Restrictions on uses: None
Manufacturer: Southern Agricultural Insecticides, Inc.
P.O. Box 218
Palmetto, FL 34220
Company Telephone/Fax: (941) 722-3285/(941) 723-2974
Emergency Telephone Number: (800) 424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION**Classification of the mixture**

Classification of the chemical in accordance with 29CFR §1910.1200

Hazard classes and Hazard categories

Hazard statements

Oxidizing solid, Cat. 3

May intensify fire; Contains Potassium Nitrate, an oxidizer

**Label elements
Hazard pictograms****Signal word**

Warning

Hazard Statements

May intensify fire; Contains Potassium Nitrate, an oxidizer

Precautionary Statements

Keep away from flammable / combustible / reducing materials.

Wear protective gloves / protective clothing / eye protection. Wash hands and face thoroughly after handling.

Response:

In case of fire: use any suitable mean for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water.

Disposal:

Dispose of contents/container according to local/state/federal regulations.

Other hazards: None**Classification of the relevant ingredients of the mixture in accordance with 29CFR §1910.1200**

Potassium nitrate Oxidizing solid, Cat. 3

Urea Not classified

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a mixture/preparation

Substance name	CAS No	EC No	Concentration
Potassium nitrate	7757-79-1	231-818-8	65-75%
Urea	57-13-6		22-25%
Monoammonium Phosphate	7722-76-1		<9%

4. FIRST AID MEASURES

Description of first aid measures

General information

In case of persisting adverse effects consult a physician. Never give anything by mouth to an unconscious person or a person with cramps.

In case of inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention for any breathing difficulty.

In case of skin contact

Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

In case of ingestion

Rinse mouth and drink plenty of water. Do not induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

The following symptoms may occur:

In case of skin contact May cause redness or irritation

In case of eye contact Causes eye irritation

In case of ingestion Ingestion of large amounts immediately call a Poison Control Center or doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Use any suitable mean for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water.

Unsuitable material: None, but attention should be paid to compatibility with surrounding chemicals

Specific hazards arising from the chemical

Oxidizer. Contact with combustible materials will not cause spontaneous ignition, however, this product will enhance an existing fire.

Thermal decomposition can lead to the escape of toxic/corrosive gases and vapours.

Thermal decomposition products: Nitrous oxides (NO_x), nitrites, phosphorus oxides, ammonia and metallic oxides.

Protective equipment and precautions for firefighters

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (self contained breathing apparatus (SCBA)).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Provide adequate ventilation. Wear personal protection equipment (Section 8).

Environmental precautions

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal or recovery.

Unsuitable material for containment/taking up: Do not absorb in saw-dust or other combustible absorbents.

Other information

None

7. HANDLING AND STORAGE

Precautions for Safe Handling

Provide adequate ventilation. Wear personal protective equipment. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from flammable, combustible and reducing substances.

Conditions for safe storage, including any incompatibilities

Keep/store only in original container. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Do not store together with: Combustible substance, reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Occupational exposure limits

	Potassium nitrate	Urea
OSHA PEL	Not Established	Not Established
STEL/ceiling	Not Established	Not Established
ACGIH (2012 TLVs® and BEIs®)		
TWA	5 mg/m ³	10 mg/m ³
STEL/ceiling	Not Established	Not Established

Derived No-Effect Level (DNEL) suggested by the manufacturer

Workers (industrial/professional):

Potassium nitrate

DNEL Human, dermal, long term (repeated): 20.8 mg/kg/day (systemic)

DNEL Human, inhalation, long term (repeated): 36.7 mg/rn" (systemic)

Derived No-Effect Level (DNEL) is the level of exposure to the substance above which humans should not be exposed.

Engineering controls

Use exhaust ventilation to keep airborne concentrations below exposure limits.

Eye/face protection Chemical goggles required all the time.

Skin Protection Nitrile rubber gloves, over 0.11 mm thickness, > 480 min breakthrough time, recommended.
Overall.

Respiratory Protection Wear respiratory protection, where airborne concentrations are expected to exceed exposure limits

General Hygiene Considerations

Avoid contact with eyes and skin. Wash hands and face thoroughly after handling. Have eye-wash facilities immediately available. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Solid, granular or crystalline powder
Color	White to pale blue
Odor	Odorless
Odor Threshold	Not applicable
pH value	No data available
Melting point / freezing range	No data available
Boiling temperature / boiling range	No data available
Flash point	No data available
Vaporisation rate / Evaporation rate	No data available
Flammable solids	Not flammable
Explosion limits (LEL, UEL)	Not applicable
Vapor pressure	No data available
Vapor density	No data available
Relative Density	No data available
Solubility	Highly soluble
Partition coefficient n-octanol /water	Not applicable
Auto Ignition temperature {A IT)	Not applicable
Decomposition temperature	No data available
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidizing properties	Oxidizer
Other information	
None	

10. STABILITY AND REACTIVITY

Nitrous oxides (NOx), nitrites, phosphorus oxides, ammonia and metallic oxides.

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stable under normal storage and temperature conditions.

Possibility of hazardous reactions

None identified

Conditions to avoid

Keep away from flammable, combustible and reducing substances.

Incompatible materials

Flammable, combustible and reducing substances under specific conditions.

Hazardous decomposition products

Thermal decomposition products: Nitrous oxides (NO_x), nitrites, phosphorus oxides, ammonia and metallic oxides.

11. TOXICOLOGICAL INFORMATION

The following information mostly refers to the major component of the product.

Likely routes of exposure (inhalation, ingestion, skin and eye contact)

Eye contact, skin contact and inhalation. Exposure by ingestion is not expected to occur through normal industrial or agricultural use.

Symptoms related to the physical, chemical and toxicological characteristics

May be irritant to the respiratory tract. Causes serious eye irritation. May cause redness or irritation to the skin. Ingestion of large amounts may cause gastrointestinal disturbances. May cause delayed lung effects after short term exposure to thermal degradation products.

Information on toxicological effects from short and long term exposure

There is no data for the mixture itself.

Acute toxicity

Acute oral toxicity	LD50: (oral)
Acute Toxicity Estimate for the mixture	> 2000 mg/kg bw
Potassium nitrate	3759 mg/kg (rat)
Urea	14300 mg/kg (rat dose)
Assessment / classification:	Based on available data for the ingredients of the mixture, the classification criteria are not met. No known significant effects or critical hazards.

Irritant and corrosive effects

Irritation to the skin	Result	Method
Potassium nitrate	non-irritant.	Equivalent/similar to OECD guideline 404

Assessment / classification: Based on available data, the classification criteria are not met.

Irritation to eyes

Potassium nitrate	Result	Method
	Not-irritating	OECD Guideline 405
Assessment / classification:	Irritation could occur if fertilizer solution is splashed in eyes.	

Respiratory or skin sensitisation

Skin sensitization

Potassium nitrate	Result	Method
	not sensitizing.	OECD Guideline 429
Respiratory sensitisation	No information available.	

Assessment / classification: Based on available data, the classification criteria are not met.

Genetic effects

The product does not contain ingredients classified as germ cell mutagens.

Potassium nitrate	Bacterial (Ames Test)	Chromosomal aberrations	Mutation in mammalian cell:
	negative	negative	negative

Assessment / classification: Based on available data, the classification criteria are not met.

Reproductive toxicity

Potassium nitrate No adverse effects on fertility/development (NOAEL >1500 mg/kg bw).

Assessment / classification: Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure)

The product does not contain relevant ingredients classified as Target Organ Toxicant after single exposure.

Potassium nitrate No relevant effect have been observed after single exposure to potassium nitrate.

Assessment / classification: Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure)

	Organs affected:	Effects	Guideline
Potassium nitrate	None	No effects (NOAEL >1500 mg/kg bw)	OECD 422

Assessment / classification: Based on available data, the classification criteria are not met

Aspiration hazard

Physicochemical data and toxicological information does not indicate an aspiration hazard.

Assessment / classification: Based on available data, the classification criteria are not met

Carcinogenicity

International Agency for Research on Cancer (IARC)	No component of this product present at levels ≥ 0.1 is identified as probable, possible or confirmed human carcinogen by IARC.
National Toxicology Program (NTP)	No component of this product present at levels ≥ 0.1 is identified as known or anticipated carcinogen by NTP.
29 CFR part 1910, subpart Z	No component of this product present at levels ≥ 0.1 is identified as carcinogen or potential carcinogen by OSHA.
California Proposition 65	No component of this product present at levels ≥ 0.1 is identified as carcinogen by California Prop.65.
WHO (2003) Nitrate in drinking water	No association between nitrate exposure in humans and the risk of cancer.

Assessment / classification: Based on available data, the classification criteria is not met

Other Toxicological Information

This product contains trace amounts of naturally-occurring perchlorate and iodate. Like other goitrogenic substances, perchlorate may affect iodine uptake by thyroid under specific conditions.

12. ECOLOGICAL INFORMATION

There is no data for the mixture itself. The following information mostly refers to the major component of the product.

Ecotoxicity

Aquatic Toxicity

Potassium nitrate		
96-h LC50	1378 mg/L	Poecilia reticulata (freshwater fish)
24-h EC50	490 mg/L	Daphnia magna (fresh water flea).
10 d EC50	> 1700 mg/L	Several algae species
Urea		
96-h LC50	6,810 mg/l	Fish (Cyprinus carpio) (freshwater)
24-h EC50	10,000 mg/L	Daphnia magna (fresh water flea)
48-h EC50	3910mg/L	Daphnia magna (fresh water flea)

Assessment / classification: Based on available data, the classification criteria is not met

Persistence and degradability

The product contains mainly inorganic nitrate and phosphate salts. In aqueous solutions, these salts dissociate into their respective ions. Phosphate ions are finally incorporated into the Phosphorus cycle. Under anoxic conditions, denitrification occurs and nitrate is ultimately converted into molecular nitrogen as part of the Nitrogen cycle.

Bioaccumulative potential

Low potential for bioaccumulation based on physicochemical properties of main components.

Mobility in soil

The components of this mixture have a low potential for adsorption. Portion not taken up by plants, can leach to groundwater.

Other adverse effects

None known

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable federal and state laws. Product should, if possible, be used for an appropriate application.

Waste containing nitrates that exhibit the characteristic of ignitability has the EPA Hazardous Waste Number of D001 according to the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

14. TRANSPORTATION INFORMATION

US DOT (49CFR part 172)

UN-No.	1479
UN Proper Shipping Name	(Potassium Nitrate) NOS
Hazard class	5.1
Packing group	III
Hazard label(s)	5.1 (oxidizer)
Special marking	No
Special Provision	None

15. REGULATORY INFORMATION

US Federal

SARA Title III Rules

Section 311/312 Hazard Classes

Fire Hazard	Yes (Oxidizer)
Release of Pressure	No
Reactive Hazard	No

Section 313 Toxic Chemicals

N511 Nitrate compounds (water dissociable; reportable only when in aqueous solution)

Section 302 Extremely Hazardous Substances (EHS)/CERCLA Hazardous Substances

None ingredient is listed.

NFPA 704/2012: National Fire Protection Association

Health	0
Fire	0
Reactivity	0
Special	OX

US State Regulations

California Proposition 65 No ingredient is listed.

California Code of Regulations Title 22 (Health & Safety Code) See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/> Chapter 33

Chemical Inventories

United States TSCA	All ingredients are listed
Canada DSL	All ingredients are listed
European Union (EINECS)	All ingredients are listed
Japan (METI)	All ingredients are listed

16. OTHER INFORMATION

This SDS complies with 29 CFR part 1910 subpart Z (2012) and ANSI Standard Z400.1-2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Southern Agricultural Insecticides, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Southern Agricultural Insecticides, Inc. has been advised of the possibility of such damages.