



Safety Data Sheet POTASSIUM NITRATE

SECTION 1: Identification

1.1 Product identifier

Product name	POTASSIUM NITRATE
Product number	Unavailable
Brand	Unavailable
Substance name	Potassium nitrate
EC no.	231-818-8
CAS no.	7757-79-1

1.2 Other means of identification

Unavailable

1.3 Recommended use of the chemical and restrictions on use

For industrial and manufacturing processes.

1.4 Supplier's details

Name	Duda Energy LLC
Address	1112 Brooks St. Decatur, AL 35601 USA
Telephone	256.340.4866
Fax	Unavailable
email	Unavailable

1.5 Emergency phone number(s)

800.255.3924 (Chemtel)

SECTION 2: Hazard identification

General hazard statement

May intensify fire; oxidizer.
Harmful to aquatic life.

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS rev. 5

- Oxidizing solids (chapter 2.14), Cat. 3

- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H272

May intensify fire; oxidizer

H402

Harmful to aquatic life

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

P220

Keep/Store away from clothing/.../combustible materials.

P221

Take any precaution to avoid mixing with combustibles/...

P273

Avoid release to the environment.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378

In case of fire: Use ... to extinguish.

P501

Dispose of contents/container to ...

2.3 Other hazards which do not result in classification

Unavailable

Statement regarding ingredients of unknown toxicity

Unavailable

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Potassium nitrate
EC no.	231-818-8
CAS no.	7757-79-1
Formula	KNO ₃
Molecular weight	101.1
Other names / synonyms	Nitric acid potassium salt (1:1); Potassium nitrate
Impurities and stabilizing additives	None

Hazardous components

1. Potassium nitrate

Concentration

99 - 100 %

CAS no.

7757-79-1

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Get medical advice/attention if you feel unwell. Show this SDS to the doctor in attendance.
If inhaled	Move to fresh air. Get medical attention if symptoms persist.
In case of skin contact	Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.
In case of eye contact	Flush with water. If irritation occurs, get medical assistance.
If swallowed	Rinse mouth. Get medical attention if symptoms occur.
Personal protective equipment for first-aid responders	Unavailable

4.2 Most important symptoms/effects, acute and delayed

May cause irritation to skin, eyes, and respiratory tract.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

This product is non-combustible. Use fire-extinguishing media appropriate for surrounding materials.

5.2 Specific hazards arising from the chemical

Strong oxidizer. Contact with combustible material may cause fire. Fire or high temperatures may cause explosive decomposition, especially if confined. Fire may produce irritating, corrosive and/or toxic gases.

5.3 Special protective actions for fire-fighters

Use standard protective equipment (flame retardant coat, helmet w/face shield, etc). If in enclosed spaces, use SCBA.

Use water to keep fire-exposed containers cool. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Cool containers exposed to flames with water until well after the fire is out.

Further information

Unavailable

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources (NO SMOKING, flares, sparks, or flames in immediate area). Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses, or onto the ground. Do not contaminate water sources or sewer.

6.3 Methods and materials for containment and cleaning up

Keep combustibles (wood, paper, oils, etc) away from spilled material. Avoid dust formation. Sweep up and place in a clearly labelled container for chemical waste. Collect in a non-combustible container for prompt disposal. Clean surface thoroughly to remove residual contamination.

Reference to other sections

None.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not handle, store, or open near an open flame or other sources of heat/ignition. Protect material from direct sunlight. Keep away from combustible material. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Do not breathe dust. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

7.2 Conditions for safe storage, including any incompatibilities

Keep material away from heat, light, sparks, and flame. Oxidizing material - store away from flammable and combustible materials. Store away from incompatible materials. Keep container tightly closed. Store in a dry, well-ventilated place.

Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Potassium nitrate (CAS: 7757-79-1)

8.2 Appropriate engineering controls

Emergency eye-wash fountains and safety showers should be available nearby in case of exposure.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses/Goggles (to protect from dust)

Skin protection

Protective garb.

Body protection

Unavailable

Respiratory protection

Where dust is present, dust mask with filter type P2.

Thermal hazards

Unavailable

Environmental exposure controls

Unavailable

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Solid - Crystalline, Prills
Odor	Odorless
Odor threshold	Unavailable
pH	6-8
Melting point/freezing point	334 °C/Unavailable
Initial boiling point and boiling range	N/A
Flash point	N/A
Evaporation rate	N/A
Flammability (solid, gas)	Unavailable
Upper/lower flammability limits	N/A
Vapor pressure	N/A
Vapor density	N/A
Relative density	2.1
Solubility(ies)	Soluble in water. Soluble in glycerol. Water: 32g/100ml Ethanol 0.16g/100ml
Partition coefficient: n-octanol/water	N/A
Auto-ignition temperature	N/A
Decomposition temperature	400 °C
Viscosity	N/A
Explosive properties	N/A
Oxidizing properties	May intensify fire; oxidizer.

Other safety information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Decomposes on exposure to temperature rise: release of oxygen. On burning: release of toxic and corrosive gases/vapours (nitrous vapours). Violent to explosive reaction with many compounds e.g.: with organic material, with combustible materials, with (some) metals and their compounds and with (strong) reducers. Reacts with (some) acids: release of toxic and corrosive gases/vapours (nitrous vapours).

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Unavailable

10.4 Conditions to avoid

Direct sunlight. Heat. Contact with incompatible materials. Open flame. Sparks. Other sources of ignition.

10.5 Incompatible materials

Flammable/combustible materials. Organic compounds. Strong acids. Metals.

10.6 Hazardous decomposition products

Nitrogen oxides.

SECTION 11: Toxicological information**Information on toxicological effects****Acute toxicity**

Not classified

Potassium Nitrate (CAS 7757-79-1)

LD50 (ORAL): Rat (3750 mg/kg)

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Not classified.

Germ cell mutagenicity

Not identified as mutagenic or genotoxic.

Carcinogenicity

Not evidenced as carcinogenic.

Reproductive toxicity

Not classified

Summary of evaluation of the CMR properties

Unavailable

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Additional information

None.

SECTION 12: Ecological information**Toxicity**

Ecology - Water:

Mild water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 50mg/l (nitrate). Not harmful to fishes. Slightly harmful to invertebrates. May cause eutrophication. Slightly harmful to plankton.

LC50 fishes 1 162 mg/l (96 h; Pisces; Lethal)

LC50 other aquatic organisms 1 39 mg/l (96 h; Daphnia magna)

EC50 other aquatic organisms 1 200 - 1000 mg/l (Plankton; Nocivity test)

LC50 fish 2 1378 mg/l (Poecilia reticulata)

LC50 other aquatic organisms 2 490 mg/l (48 h; Daphnia magna)

TLM fish 1 3000 mg/l (96 h; Lepomis macrochirus)

TLM fish 2 162 mg/l (96 h; Gambusia affinis)

Threshold limit other aquatic organisms 1 39 mg/l (96 h; Daphnia magna)

Threshold limit other aquatic organisms 2 490 mg/l (48 h; Daphnia magna)

Persistence and degradability

Unavailable

Bioaccumulative potential

Unavailable

Mobility in soil

This product is water soluble and so may spread in water systems.

Results of PBT and vPvB assessment

Unavailable

Other adverse effects

Harmful to aquatic organisms.

SECTION 13: Disposal considerations**Disposal of the product**

Disposal of this product may be subject to local regulations. Dispose of accordingly.

Disposal of contaminated packaging

Emptied containers may hold product residue/waste material. Handle and dispose of these containers in accordance with any/all applicable regulations.

Waste treatment

Waste material should be disposed of in accordance with local regulations.

Sewage disposal

Prevent exposure to sewage or water-ways.

Other disposal recommendations

None

SECTION 14: Transport information

DOT (US)

UN Number: UN1486

Class: 5.1

Packing Group: III

Proper Shipping Name: Potassium nitrate

Marine pollutant: No

IMDG

UN Number: UN1486

Class: 5.1

EmS No.: F-A, S-Q

Packing Group: III

Proper Shipping Name: Potassium nitrate

Marine pollutant: No

IATA

UN Number: UN1486

Class: 5.1

Packing Group: III

Proper Shipping Name: Potassium nitrate

Marine pollutant: No

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Pennsylvania Right To Know Components

Chemical name: Nitric acid, potassium salt

CAS number: 7757-79-1

New Jersey Right To Know Components

Common name: POTASSIUM NITRATE

CAS number: 7757-79-1

15.2 Chemical Safety Assessment

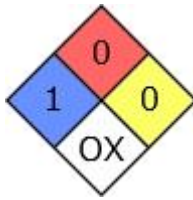
Unavailable

HMIS Rating

Potassium nitrate
HEALTH
1

FLAMMABILITY
1
PHYSICAL HAZARD
1
PERSONAL PROTECTION

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of Duda Energy LLC's knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This Safety Data Sheet only contains information relating to safety and does not replace any product information or product specification. Please note, the content may be changed, corrected, or deleted at any time without notice and may not always necessarily reflect the most current data. Duda Energy LLC will assume no responsibility for any trouble or failure caused by the errors in the information provided, nor any damage associated with the usage of the information.

16.2 Preparation information

Version: 2
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