

KNO₃/NaNO₃ 40/60 Blend

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: KNO₃ / NaNO₃ 40/60 Blend

Synonyms/Generic Names: Potassium salt / Nitric acid, sodium salt

Product Number: 2887

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information Call: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC – 1-800-424-9300 or 1-703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Word: Warning

Pictograms:



GHS Classification:

Oxidizing solids	Category 3
Acute toxicity, Oral	Category 4
Eye irritation	Category 2A
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P210	Keep away from heat.
P220	Keep/Store away from clothing/combustibles.
P221	Take any precaution to avoid mixing with combustibles.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.
P301+P330+P312	IF SWALLOWED: Rinse mouth. Call a POISON CENTER/doctor/physician if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use appropriate media to extinguish.
P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes serious eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Ingestion	May be harmful if swallowed.

NFPA Ratings

Health	2
Flammability	0
Reactivity	1
Specific hazard	OX

HMIS Ratings

Health	2
Fire	0
Reactivity	1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Potassium Nitrate	40.00	7757-79-1	231-818-8	KNO ₃	101.11 g/mol
Sodium Nitrate	60.00	7631-99-4	231-554-3	NaNO ₃	84.99 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Use appropriate media of adjacent fire. Cool containers with water. Keep away from common metals. Use WATER only, no dry chemical or carbon dioxide.
Special protective equipment	Wear self-contained, approved breathing apparatus and full protective

and precautions for firefighters	clothing, including eye protection and boots. Self-contained air supply to protect from oxides of nitrogen. Move container from fire area if possible.
Specific hazards arising from the chemical	Noxious fumes (nitrogen oxides, sodium oxides) may form. Oxidizers decompose when heated to yield oxygen and other gases which accelerate combustion. Contact with organics, other combustible may result in explosion/violent combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols. See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Store under inert gas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Contains no substances with occupational exposure limit values.

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear appropriate chemical-resistant gloves, apron and other protective clothing appropriate to the risk exposure.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	White solid
Odor	Not Available
Odor threshold	Not Available
pH	Not Available

Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Density	Not Available
Solubility (ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Fusion of mixtures of metal cyanides, including lead thiocyanate, with metal chlorates, perchlorates, nitrates or nitrites causes a violent explosion. Avoid contact with organics. Heat.
Incompatible Materials	Strong acids, strong reducing agents, powdered metals, organic materials, alkali metals, alkaline earth metals, cyanides, thiocyanates and combustible materials.
Hazardous Decomposition Products	Sodium oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Potassium Nitrate

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – rat – 3,750 mg/kg LD50 Oral – rabbit – 1,901 mg/kg

Sodium Nitrate

Skin	Not available
Eyes	Not available
Respiratory	Not Available
Ingestion	LD50 Oral – rat – 1,267 mg/kg LD50 Oral – rabbit – 2,680 mg/kg LD50 Oral – Child – 22.5 mg/kg
Other	LD50 Intravenous – mouse – 175 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Redness, itching, irritation, and pain
Eyes	Irritation, redness, watering eyes, itchiness.
Respiratory	Dizziness, difficulty breathing, shortness of breath, Irritation, and coughing.
Ingestion	Gastroenteritis, abdominal pain, nausea, vomiting, bloody diarrhea, metabolism acidosis, muscular weakness, dizziness, fatigue, headache, mental impairment, in coordination, convulsions, accelerated heart rate, orthostatic hypotension, dyspnea, and in severe cases, methemoglobinemia due to inadequate oxygenation of the blood leading to progressive cyanosis, and coma. Cyanosis is first visible as a bluish discoloration of the mucous membranes and unpigmented areas of the body. Purging and diuresis can be expected. Rare cases of nitrates being converted into more toxic nitrites.

Onset may be delayed 2 to 4 hours or longer.

Chronic Toxicity	May cause damage to the following organs: blood
Teratogenicity	Not Available
Mutagenicity	May affect genetic material
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Not Available
Reproductive Toxicity	May cause adverse reproductive effects based on animal test data.
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Potassium Nitrate

Aquatic Vertebrate	LC50 – <i>Gambusia affinis</i> (Mosquito fish) – 22.5 mg/l – 96h
Aquatic Invertebrate	EC50 – <i>Daphnia magna</i> (water flea) – 226 mg/l - 72 h
Terrestrial	Not Available

Sodium Nitrate

Aquatic Vertebrate	LC50 – <i>Gambusia affinis</i> (Mosquito fish) – 6,650 mg/l – 96h
Aquatic Invertebrate	EC50 – <i>Daphnia magna</i> (water flea) – 6,600 mg/l - 24 h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residues.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1479, Oxidizing solid, n.o.s., (Potassium nitrate, Sodium nitrate), 5.1, pgIII
TDG	UN1479, OXIDIZING SOLID, N.O.S., (POTASSIUM NITRATE, SODIUM NITRATE), 5.1, PGIII
IMDG	UN1479, OXIDIZING SOLID, N.O.S., (POTASSIUM NITRATE, SODIUM NITRATE), 5.1, PGIII
Marine Pollutant	No
IATA/ICAO	UN1479, Oxidizing solid, n.o.s., (Potassium nitrate, Sodium nitrate), 5.1, pgIII

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Massachusetts: Toxic or Hazardous Substance List	Listed: Potassium nitrate, Sodium nitrate
New Jersey: Right to Know Hazardous Substance List	Listed: Potassium nitrate,
Pennsylvania: Hazardous Substance List	Listed: Nitric acid Potassium salt, Nitric acid Sodium salt
Rhode Island: Hazardous Substance List	Listed: Niter, Sodium nitrate
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
SARA 313	Not Listed
WHMIS Canada	Not Listed

16. OTHER INFORMATION

Revision	Date
Created on	03/29/2021

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.