

Ethanol/Nitric Blend, 190 Proof

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ethanol/Nitric Blend, 190 Proof

Synonyms/Generic Names: None

Product Number: 8598

Product Use: Industrial, Manufacturing or Laboratory use

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

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

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

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Target Organ(s): Nerves, Liver, Heart, Lungs, Teeth, Cardiovascular system.

Signal Words: Danger

Pictograms



GHS Classification:

Flammable liquids	Category 2
Skin corrosion	Category 1
Eye irritation	Category 1
Specific target organ toxicity-single exposure	Category 3

GHS Label Elements, including precautionary statements:

Hazard Statements:

H225	Highly flammable liquid and vapor.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
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P233	Keep container tightly closed.
P240	Ground/Bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician.
P312	Call a POISON CENTER/doctor/physician if you feel unwell.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes eye burns.
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns.
Ingestion	May be harmful if swallowed

NFPA Ratings

Health	2
Flammability	3
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	3
Reactivity	1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Ethyl Alcohol	81-82	64-17-5	200-578-6	C ₂ H ₅ OH	46.07 g/mol
Water	6-7	7732-18-5	231-791-2	H ₂ O	18.00 g/mol
Nitric Acid	2-3	7697-37-2	231-714-2	HNO ₃	63.01 g/mol
Methyl Alcohol	2-3	67-56-1	200-659-6	CH ₃ OH	32.04 g/mol
Methyl Isobutyl Ketone	1-2	108-10-1	203-550-1	C ₆ H ₁₂ O	100.16 g/mol
Ethyl Acetate	1-2	141-78-6	205-500-4	C ₄ H ₈ O ₂	88.11 g/mol
Light Aliphatic Solvent Naphtha	<1	64742-89-8	289-220-8	Mixture	Mixture

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention.
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	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	Flammable liquid. Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Cool unopened containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides, nitrogen oxides) under fire conditions. (See also Stability and Reactivity section). Vapors can travel to a source of ignition and flash back. Containers may explode in a fire. Cool containers from a distance using water spray. SENSITIVE TO STATIC DISCHARGE.

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	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then 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

Use with adequate ventilation and grounding. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in tightly closed, original containers in a cool, dry, well ventilated area. Store between 55-100°F for product stability. Do not store with strong oxidizing agents, strong acids, peroxides, aldehydes, halogens, ammonia, acid anhydrides or alkali metals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Ventilation and appropriate grounding of containers.

Component	Exposure Limits	Basis	Entity
Nitric Acid	2 ppm	TLV	ACGIH
	5.2 mg/m ³		
	4 ppm	STEL	ACGIH
	10 mg/m ³		
	2 ppm	PEL	OSHA
	5 mg/m ³		
	2 ppm	REL	NIOSH
	5 mg/m ³		
	4 ppm	STEL	NIOSH
	10 mg/m ³		
	25 ppm	IDLH	OSHA
Ethyl Alcohol	1000 ppm	REL	NIOSH
	1900 mg/m ³		
	1000 ppm	PEL	OSHA
	1900 mg/m ³		
	1000 ppm	STEL	ACGIH
	1880 mg/m ³		
	3300 ppm	IDLH	OSHA
Methyl Isobutyl Ketone	20 ppm	TLV	ACGIH
	75 ppm	STEL	ACGIH
	100 ppm	PEL	OSHA
Ethyl Acetate	400 ppm	PEL	OSHA
	400 ppm	TLV	ACGIH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Clear, colorless liquid
Odor	Mild alcohol

Odor threshold	Not Available
pH	Acidic
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	14°C (57.2°F) (Ethanol)
Evaporation rate	Not Available
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	3.3-19% (Ethanol)
Vapor pressure	(@ 20°C) 44.6 mmHg (Ethanol)
Vapor density	(air=1) 1.6 (Ethanol)
Relative density	Not Available
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	363°C (685.4°F) (Ethanol)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Keep away from heat, flame and sparks.
Incompatible Materials	Alkali metals, ammonia, oxidizing agents, peroxides.
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	Not Available

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	A3: Confirmed animal carcinogen with unknown relevance to humans. (Ethyl Alcohol)
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

Eyes	Irritation, redness, excessive blinking and watering eyes.
Inhalation	Irritation of mucous membranes and central nervous system depression, coughing, wheezing, headache, disorientation, blurred vision, dizziness, fatigue or nausea.
Skin	Irritation, burning, itching, redness.
Ingestion	Vomiting, may cause blindness and central nervous system depression.

Chronic Toxicity	Carcinogenicity – mouse – Oral Tumorigenic: Equivocal Tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease.
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Pre-and Post-implant mortality.

Target Organ(s)	Nerves, Liver, Heart, Lungs, Teeth, Cardiovascular system.
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

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

13. DISPOSAL CONSIDERATIONS

Waste Product or 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 residue.
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	UN2924, Flammable liquids, corrosive, n.o.s., (Ethyl Alcohol and Nitric acid), 3, (8), pg II
TDG	UN2924, FLAMMABLE LIQUIDS, CORROSIVE, N.O.S., (ETHYL ALCOHOL AND NITRIC ACID), 3, (8), PG II
IMDG	UN2924, FLAMMABLE LIQUIDS, CORROSIVE, N.O.S., (ETHYL ALCOHOL AND NITRIC ACID), 3, (8), PG II
Marine Pollutant	No
IATA/ICAO	UN2924, Flammable liquids, corrosive, n.o.s., (Ethyl Alcohol and Nitric acid), 3, (8), pg II

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	Listed: Ethyl Alcohol, Methyl Alcohol, Methyl Isobutyl Ketone
Rhode Island: Hazardous Substance List	Listed: Nitric Acid, Ethyl Alcohol, Methyl Alcohol, Methyl Isobutyl Ketone, Ethyl Acetate, Light Aliphatic Solvent Naphtha

Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Nitric Acid, Ethyl Alcohol, Methyl Alcohol
Pennsylvania: Hazardous Substance List	Listed: Nitric Acid, Ethyl Alcohol, Methyl Alcohol, Ethyl Acetate
New Jersey: Right to Know Hazardous Substance List	Listed: Nitric Acid, Ethyl Alcohol, Methyl Alcohol, Methyl Isobutyl Ketone, Ethyl Acetate, Light Aliphatic Solvent Naphtha
SARA 302	Listed: Nitric Acid
SARA 304	Listed: Nitric Acid
SARA 311	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 312	Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: Nitric Acid, Methyl Alcohol
WHMIS Canada	Class B: Flammable and combustible material – Flammable liquid. Class C: Oxidizing material. Class D1B: Poisonous and infectious material – Immediate and serious effects – Toxic. Class D2A: Poisonous and infectious material – Other effects – Very toxic. Class D2B: Poisonous and infectious material – Other effects – Toxic. Class E: Corrosive material.

16. OTHER INFORMATION

Revision	Date
Original	08/15/2011
Revision 1	10/04/2013
Revision 2	03/17/2016
Revision 3	03/20/2017
Revision 4	09/27/2018
Revision 5	01/10/2022

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