NDT11D Dry Lubricant (Aerosol)

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024.
Issue date: 11/10/2021 Revision date: 3/5/2025 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Product name	:	NDT11D Dry Lubricant (Aerosol)
Product code	:	NDT11D
Tariff Code	:	2905.120050

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Lubricant. Consumer/Industrial Use.

1.3. Supplier

Manufacturer
Nano Pro MT
7427 Matthews-Mint Hill Road, Suite 201
Charlotte, NC 28227 - USA
T (877) 626-6776 or (704) 954-8290

1.4. Emergency telephone number

Emergency number	:	CHEMTREC (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Aerosol, Category 1	Extremely flammable aerosol. Pressurized container; may burst if heated.
Skin corrosion/irritation, Category 2	Causes skin irritation.
Serious eye damage/eye irritation, Category 2A	Causes serious eye irritation.
Specific target organ toxicity – Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness.
Aspiration hazard, Category 1	May be fatal if swallowed and enters airways.

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) :
Extremely flammable aerosol
Pressurized container; may burst if heated
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness

Precautionary statements (GHS US) :
If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.

Avoid breathing dust, fume, gas, mist, vapours, spray.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves
If swallowed: Immediately call a poison center or doctor.
Do NOT induce vomiting.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice or attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
IF IN EYES: 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 or attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 122 °F (50 °C).
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Isopropyl alcohol	CAS-No.: 67-63-0	40 - 50
Petroleum gases, liquefied, sweetened	CAS-No.: 68476-86-8	30 - 40
n-Heptane	CAS-No.: 142-82-5	20 - 30

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: 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.

First-aid measures after ingestion : IF SWALLOWED: Immediately call a poison center or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water fog. Alcohol resistant foam. Carbon dioxide (CO2). For small fire: Dry chemical powder. Carbon dioxide (CO2). Sand/earth.
Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Extremely flammable aerosol. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static accumulation may be significantly increased by the presence of small quantities of water or other contaminants. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Products of combustion may include, and are not limited to: oxides of carbon. Hazardous gases. Irritating vapors.
Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Ruptured cylinders may rocket.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool closed containers exposed to fire with water spray. Move containers away from the fire area if this can be done without risk. Keep packages near the fire cool, to prevent pressurised containers from bursting.
Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Isolate from fire, if possible, without unnecessary risk. Eliminate every possible source of ignition. Use only non-sparking tools. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Relevant water authorities should be notified of any large spillage to water course or drain.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Eliminate sources of ignition. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation. Flush contaminated areas with plenty of water.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Hazardous waste due to potential risk of explosion.

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Wear personal protective equipment. Avoid prolonged or repeated exposure. When using do not eat, drink or smoke. Handle and open container with care.

Hygiene measures : Take off contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep away from ignition sources. Keep in fireproof place. Do not puncture or incinerate containers. Protect from sunlight. Protect containers from physical damage. Store locked up. Keep away from incompatible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NDT11D Dry Lubricant (Aerosol)
No additional information available

Isopropyl alcohol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH OEL TWA	200 ppm
ACGIH OEL STEL	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI

Isopropyl alcohol (67-63-0)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL
BEI (BLV)	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift at end of workweek (background, nonspecific)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL TWA	980 mg/m³
OSHA PEL TWA	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH	2000 ppm (10% LEL)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	980 mg/m³
NIOSH REL (TWA)	400 ppm
NIOSH REL (STEL)	1225 mg/m³
NIOSH REL (STEL)	500 ppm

Petroleum gases, liquefied, sweetened (68476-86-8)
No additional information available

n-Heptane (142-82-5)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	400 ppm (Heptane, all isomers)
ACGIH OEL STEL	500 ppm (Heptane, all isomers)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	2000 mg/m³
OSHA PEL TWA	500 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH	750 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	350 mg/m³
NIOSH REL (TWA)	85 ppm
NIOSH REL (Ceiling)	1800 mg/m³
NIOSH REL (Ceiling)	440 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid / Aerosol
Appearance	:	Opaque.
Color	:	Dark gray
Odor	:	Hydrocarbon
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	-131.08 °F (-90.6 °C) estimated
Freezing point	:	-131.08 °F (-90.6 °C) estimated
Boiling point	:	180.5 °F (82.5 °C) estimated
Flash point	:	24.8 °F (-4.0 °C) Tag Closed Cup
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Extremely flammable aerosol.
Vapor pressure	:	60.78 hPa estimated
Relative vapor density at 20°C	:	No data available
Relative density	:	0.76 estimated
Density	:	6.32 lb/gal estimated
Solubility	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	750.2 °F (399 °C) estimated
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	Not explosive.
Oxidizing properties	:	Not oxidizing.

9.2. Other information

VOC content : > 96 % estimated

Flame projection length	:	> 17 in
Flashback	:	No
Flammability class	:	Flammable IB estimated
Heat of combustion	:	20.27 kJ/g estimated
Flammability limit - lower	:	2.5% estimated
Flammability limit - upper	:	12% estimated
Volatility	:	44% estimated

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. Extremely flammable aerosol. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Keep at temperature not exceeding the flash point. Sparks. Open flame. Direct sunlight. Overheating. Incompatible materials.

10.5. Incompatible materials

Acids. Strong oxidizing agents. Isocyanates. Chlorine.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Hazardous gases. Irritating vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Isopropyl alcohol (67-63-0)	
LD50 oral rat	5045 mg/kg
LD50 dermal rabbit	4059 mg/kg (Source: JAPAN_GHS)
LC50 inhalation rat	> 10000 ppm (Exposure time: 6 h Source: ECHA_API)

n-Heptane (142-82-5)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 inhalation rat	> 73.5 mg/l/4h

Skin corrosion/irritation	:	Causes skin irritation.
Serious eye damage/irritation	:	Causes serious eye irritation.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : May cause drowsiness or dizziness.

Isopropyl alcohol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

n-Heptane (142-82-5)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Petroleum gases, liquefied, sweetened (68476-86-8)	
LOAEC (inhalation,rat,gas,90 days)	12000 ppm Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:OPPTS 870.3650 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

n-Heptane (142-82-5)	
LOAEC (inhalation,rat,vapor,90 days)	16.6 mg/l air Animal: rat, Animal sex: male
NOAEC (inhalation,rat,vapor,90 days)	3.3 mg/l air Animal: rat, Animal sex: male

Aspiration hazard : May be fatal if swallowed and enters airways.
Viscosity, kinematic : No data available

n-Heptane (142-82-5)	
Viscosity, kinematic	0.641 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Isopropyl alcohol (67-63-0)	
LC50 - Fish [1]	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: IUCLID)
EC50 - Crustacea [1]	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID)
EC50 72h - Algae [1]	> 1000 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	> 1000 mg/l (Species: Desmodesmus subspicatus)

n-Heptane (142-82-5)	
LC50 - Fish [1]	375 mg/l (Exposure time: 96 h - Species: Cichlid fish)
EC50 - Crustacea [1]	1.5 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

NDT11D Dry Lubricant (Aerosol)	
Persistence and degradability	Not established.

Isopropyl alcohol (67-63-0)	
Persistence and degradability	Rapidly degradable

Petroleum gases, liquefied, sweetened (68476-86-8)	
Persistence and degradability	Rapidly degradable

n-Heptane (142-82-5)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

NDT11D Dry Lubricant (Aerosol)	
Bioaccumulative potential	Not established.

Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water	0.05 (at 25 °C)

Petroleum gases, liquefied, sweetened (68476-86-8)	
Partition coefficient n-octanol/water	≤ 2.8

n-Heptane (142-82-5)	
Partition coefficient n-octanol/water	4.66

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Container under pressure. Do not drill or burn even after use.

Additional information : Flammable vapors may accumulate in the container. Empty containers may contain residues which are hazardous. Do not re-use empty containers. Hazardous waste due to potential risk of explosion.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No.(DOT) : UN1950

14.2. UN proper shipping name

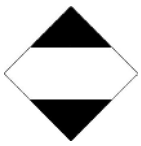
Proper Shipping Name (DOT) : Aerosols (Limited quantity)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : LTD QTY

Hazard labels (DOT) : LTD QTY



14.4. Packing group

Packing group (DOT) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Isopropyl alcohol (67-63-0)

Subject to reporting requirements of United States SARA Section 313

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

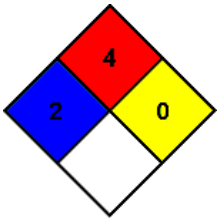
Component	State or local regulations
Isopropyl alcohol(67-63-0)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
n-Heptane(142-82-5)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024.

Issue date : 11/10/2021
Revision date : 3/5/2025
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Indication of changes:
SDS update. State Right to Know (Section 15 update).

Safety Data Sheet (SDS), USA - Nexreg 2023

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.