Nitrogen dioxide (Dinitrogen Tetroxide)

Safety Data Sheet LIND-P088

This SDS conforms to U.S. Code of Federal Regulations 29 CFR 1910.1200, Hazard Communication.

Issue date: 06/03/2015 Revision date: 03/31/2025 Supersedes: 03/25/2022 SDS US Version: 2.2

SECTION: 1. Product and company identification

1.1. Product identifier

Product form : Substance

Substance name : Nitrogen dioxide (Dinitrogen Tetroxide)

CAS-No. : 10102-44-0

Formula : NO2

Other means of identification : Nitrogen Oxide; Nitrogen Peroxide; Dinitrogen Tetroxide

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial and professional use

1.3. Details of the supplier of the safety data sheet

Linde Inc.
10 Riverview Drive
Danbury, CT 06810-6268, USA
www.lindeus.com

Electronics gas products 1-800-932-0624 or 1-908-329-9700
Linde Inc. 1-844-44LINDE (1-844-445-4633)

For additional product information contact your local customer service.

1.4. Emergency telephone number

Emergency number : Onsite Emergency: 1-800-645-4633

CHEMTREC, 24 hr/day 7 days/week
— Within USA: 1-800-424-9300, Outside USA: 001-703-527-3887
(collect calls accepted, Contract 17729)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

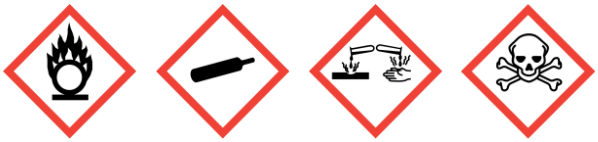
GHS-US classification

Ox. Gas 1	H270
Press. Gas (Liq.)	H280
Acute Tox. 1 (Inhalation:gas)	H330
Skin Corr. 1B	H314
Eye Dam. 1	H318

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US) :



GHS03 GHS04 GHS05 GHS06

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H270 - MAY CAUSE OR INTENSIFY FIRE; OXIDIZER
H280 - CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED
H314 - CAUSES SEVERE SKIN BURNS AND EYE DAMAGE
H330 - FATAL IF INHALED
CGA-HG01 - MAY CAUSE FROSTBITE.
CGA-HG11 - SYMPTOMS MAY BE DELAYED
CGA-HG22 - CORROSIVE TO THE RESPIRATORY TRACT.

Precautionary statements (GHS US) : P202 - Do not handle until all safety precautions have been read and understood.
P220 - Keep/Store away from clothing and other combustible materials.
P244 - Keep reduction valves/valves and fittings free from oil and grease.

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P260 - Do not breathe gas/vapours
P262 - Do not get in eyes, on skin, or on clothing.
P271+P403 - Use and store only outdoors or in a well-ventilated place
P280+P284 - Wear protective gloves/protective clothing/eye protection/respiratory protection and/or face protection
P370+P376 - IN CASE OF FIRE: Stop leak if safe to do so
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with container supplier/owner instructions
CGA-PG05 - Use a back flow preventive device in the piping.
CGA-PG20+CGA-PG10 - Use only with equipment of compatible materials of construction and rated for cylinder pressure.
CGA-PG22 - Use only with equipment cleaned for oxygen service.
CGA-PG12 - Do not open valve until connected to equipment prepared for use.
CGA-PG21 - Open valve slowly.
CGA-PG06 - Close valve after each use and when empty.
CGA-PG18 - When returning cylinder, install leak tight valve outlet cap or plug.
CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F).
P304, P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.Immediately call a POISON CENTER/doctor.
P305, P351, P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P303, P361, P353, P363, P310 - IF ON SKIN OR (HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor.
P336 - Thaw frosted parts with lukewarm water. Do not rub affected area.

2.3. Other hazards

Other hazards which do not result in classification : None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Nitrogen dioxide (Dinitrogen Tetroxide)
CAS-No. : 10102-44-0

Name	Product identifier	%
Nitrogen dioxide	(CAS-No.) 10102-44-0	≥ 99
Nitrogen tetroxide	(CAS-No.) 10544-72-6	≤ 1

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should give oxygen. Call a physician. . WARNING: To avoid possible chemical burns, the rescuer should avoid breathing any exhaled air from the victim.

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First-aid measures after skin contact : In case of contact, immediately flush affected areas with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Discard contaminated shoes. The liquid may cause frostbite. For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). Water temperature should be tolerable to normal skin. Maintain skin warming for at least 15 minutes or until normal coloring and sensation have returned to the affected area. In case of massive exposure, remove clothing while showering with warm water. Seek medical evaluation and treatment as soon as possible.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Contact an ophthalmologist immediately.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

CONTACT WITH THIS PRODUCT REQUIRES IMMEDIATE MEDICAL ATTENTION! Symptoms may be delayed. Seek medical attention even if no symptoms are present.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Oxidizing agent; vigorously accelerates combustion. Contact with flammable materials may cause fire or explosion.

Explosion hazard : Heating may cause an explosion. PRESSURISED CONTAINER: MAY BURST IF HEATED.

Reactivity : Cylinders are **NOT** equipped with a pressure relief valve. MAY CAUSE OR INTENSIFY FIRE; OXIDIZER.

5.3. Advice for firefighters

Firefighting instructions : **DANGER: Toxic, oxidizing, corrosive liquid and gas under pressure.**

Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with OSHA 29 CFR 1910.156 and applicable standards under 29 CFR 1910 Subpart L—Fire Protection.

Special protective equipment for fire fighters : Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.

Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Cool endangered containers with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.

Stop flow of product if safe to do so.

Use water spray or fog to knock down fire fumes if possible.

Move containers away from the fire area if this can be done without risk.

Other information : Cylinders are **NOT** equipped with a pressure relief valve.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : **DANGER: Toxic, oxidizing, corrosive liquid and gas under pressure.**. Immediately evacuate all personnel from danger area. Do not approach area without self-contained breathing apparatus and protective clothing. If cylinders are leaking, reduce toxic vapors with water spray or fog. Reverse flow into cylinder may cause rupture. (See section 16.) Shut off flow if without risk. Ventilate area or move cylinder to a well-ventilated area.

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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

Try to stop release. Reduce vapour with fog or fine water spray. Prevent waste from contaminating the surrounding environment. Prevent soil and water pollution. Dispose of contents/container in accordance with container supplier/owner instructions.

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe gas/vapour. Avoid all contact with skin, eyes, or clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Wear leather safety gloves and safety shoes when handling cylinders. Protect containers from physical damage; do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g, wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use; keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Avoid oil, grease and all other combustible materials.

Store only where temperature will not exceed 125°F (52°C). Post “No Smoking/No Open Flames” signs in storage and use areas. There must be no sources of ignition. Separate packages and protect against potential fire and/or explosion damage following appropriate codes and requirements (e.g, NFPA 30, NFPA 55, NFPA 70, and/or NFPA 221 in the U.S.) or according to requirements determined by the Authority Having Jurisdiction (AHJ). Always secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand when the container is not in use. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods. For other precautions in using this product, see section 16.

OTHER PRECAUTIONS FOR HANDLING, STORAGE, AND USE: When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)		
ACGIH	ACGIH OEL TWA	0.2 ppm
USA OSHA	OSHA PEL C	9 mg/m³
USA OSHA	OSHA PEL C	5 ppm
USA IDLH	IDLH	13 ppm

Nitrogen dioxide (10102-44-0)		
ACGIH	ACGIH OEL TWA	0.2 ppm
USA OSHA	OSHA PEL C	9 mg/m³
USA OSHA	OSHA PEL C	5 ppm

8.2. Exposure controls

Appropriate engineering controls : Use only in a closed system. A corrosion-resistant, forced-draft fume hood is preferred. LOCAL EXHAUST: A corrosion-resistant system is acceptable. Provide adequate general and local exhaust ventilation. Ensure exposure is below occupational exposure limits (where available).

Eye protection : Provide readily accessible eye wash stations and safety showers. Wear safety glasses when handling cylinders; vapor-proof goggles and a face shield during cylinder changeout or whenever contact with product is possible. Select eye protection in accordance with OSHA 29 CFR 1910.133.

Skin and body protection : Wear metatarsal shoes and work gloves for cylinder handling, and protective clothing where needed. Wear appropriate chemical gloves during cylinder changeout or wherever contact with product is possible.

Respiratory protection : When workplace conditions warrant respirator use, follow a respiratory protection program that meets or exceeds the requirements of the appropriate Health and Safety Regulations. Use an air-supplied or air-purifying cartridge if the action level is exceeded. Ensure that the respirator has the appropriate protection factor for the exposure level. If cartridge type respirators are used, the cartridge must be appropriate for the chemical exposure. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Thermal hazard protection : Wear cold insulating gloves when transfilling or breaking transfer connections.

Other information : Wear safety shoes while handling containers. Keep suitable chemically resistant protective clothing readily available for emergency use. Consider the use of flame resistant safety clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

Molecular mass : 46 g/mol

Colour : Brownish gas.

Odour : Poor warning properties at low concentrations. Pungent.

Odour threshold : No data available

pH : Not applicable.

Relative evaporation rate (butylacetate=1) : No data available

Relative evaporation rate (ether=1) : Not applicable.

Melting point : -11.2 °C

Freezing point : No data available

Boiling point : 21.2 °C

Flash point : Not applicable.

Critical temperature : 158.2 °C

Auto-ignition temperature : Non flammable.

Decomposition temperature : No data available

Flammability : No data available

Vapour pressure : 1 bar(a)

Critical pressure : 10100 kPa

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Relative vapour density at 20°C	:	No data available
Relative density	:	1.4
Relative gas density	:	2.8
Solubility	:	Water: No data available
Partition coefficient n-octanol/water (Log Pow)	:	Not applicable.
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable.
Viscosity, kinematic	:	Not applicable.
Viscosity, dynamic	:	Not applicable.
Explosive properties	:	Not applicable.
Oxidizing properties	:	Oxidizer.
Explosive limits	:	Not known.

9.2. Other information

Additional information : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

Cylinders are **NOT** equipped with a pressure relief valve. MAY CAUSE OR INTENSIFY FIRE; OXIDIZER.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May explode on contact with:. Incompatible materials.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

Water. Reacts with water to form corrosive acids. Nitric acid. Nitric oxide. With water causes rapid corrosion of some metals. Bases. Aluminium. **May explode on contact with:**. Ammonia. Boron trichloride. Carbon disulfide. Cyclohexane. Fluorine. Formaldehyde. Nitrobenzene. Toluene. Propylene. Alcohols. Ozone. incompletely halogenated hydrocarbons.

10.6. Hazardous decomposition products

At high temperatures : Above 160°C (320°F). Nitric oxide. Oxygen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Inhalation:gas: FATAL IF INHALED.

Nitrogen dioxide (Dinitrogen Tetroxide) (\f)10102-44-0	
LC50 Inhalation - Rat [ppm]	115 ppm/1h (ADR)
ATE US (gases)	57.5 ppmv/4h

Nitrogen dioxide (10102-44-0)	
LC50 Inhalation - Rat [ppm]	115 ppm/1h (ADR)
ATE US (gases)	57.5 ppmv/4h

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Nitrogen tetroxide (10544-72-6)	
LC50 Inhalation - Rat [ppm]	115 ppm/1h (ADR)
ATE US (gases)	57.5 ppmv/4h
ATE US (vapours)	0.5 mg/l/4h
ATE US (dust,mist)	0.05 mg/l/4h

Skin corrosion/irritation : CAUSES SEVERE SKIN BURNS.
pH: Not applicable.

Serious eye damage/irritation : CAUSES SERIOUS EYE DAMAGE.
pH: Not applicable.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No data available. No known ecological damage caused by this product.

12.2. Persistence and degradability

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)	
Persistence and degradability	Not applicable for inorganic products.

Nitrogen dioxide (10102-44-0)	
Persistence and degradability	Not applicable for inorganic products.

12.3. Bioaccumulative potential

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable.
Partition coefficient n-octanol/water (Log Kow)	Not applicable.
Bioaccumulative potential	No data available.

Nitrogen dioxide (10102-44-0)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable.

Nitrogen tetroxide (10544-72-6)	
BCF - Fish [1]	(no bioaccumulation)

12.4. Mobility in soil

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)	
Mobility in soil	No data available.
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely.

Nitrogen dioxide (10102-44-0)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely.

12.5. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems.

Effect on the ozone layer : None.

Effect on global warming : No known effects from this product.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : U.S. - RCRA (Resource Conservation Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261. U.S. - RCRA (Resource Conservation Recovery Act) - P Series Wastes - Acutely Toxic Wastes.

Product/Packaging disposal recommendations : Do not attempt to dispose of residual or unused quantities. Return container to supplier.

SECTION 14: Transport information

In accordance with DOT

Transport document description (DOT) : UN1067 Dinitrogen tetroxide, 2.3

UN-No. (DOT) : UN1067

Proper Shipping Name (DOT) : Dinitrogen tetroxide

Transport hazard class(es) (DOT) : 2.3 (5.1, 8)

Hazard labels (DOT) : 2.3 - Poison gas
5.1 - Oxidizer
8 - Corrosive

DOT Special Provisions (49 CFR 172.102) : 1 - This material is poisonous by inhalation (see 171.8 of this subchapter) in Hazard Zone A (see 173.116(a) or 173.133(a) of this subchapter), and must be described as an inhalation hazard under the provisions of this subchapter.
B7 - Safety relief devices are not authorized on multi-unit tank car tanks. Openings for safety relief devices on multi-unit tank car tanks shall be plugged or blank flanged.
B14 - Each bulk packaging, except a tank car or a multi-unit-tank car tank, must be insulated with an insulating material so that the overall thermal conductance at 15.5 C (60 F) is no more than 1.5333 kilojoules per hour per square meter per degree Celsius (0.075 Btu per hour per square foot per degree Fahrenheit) temperature differential. Insulating materials must not promote corrosion to steel when wet.
B45 - Each tank must have a reclosing combination pressure relief device equipped with stainless steel or platinum rupture discs approved by the AAR Tank Car Committee.
B46 - The detachable protective housing for the loading and unloading valves of multi-unit tank car tanks must withstand tank test pressure and must be approved by the Associate Administrator.
B61 - Written procedures covering details of tank car appurtenances, dome fittings, safety devices, and marking, loading, handling, inspection, and testing practices must be approved by the Associate Administrator before any single unit tank car tank is offered for transportation.
B66 - Each tank must be equipped with gas tight valve protection caps. Outage must be sufficient to prevent tanks from becoming liquid full at 55 C (130 F). Specification 110A500W tanks must be stainless steel.
B67 - All valves and fittings must be protected by a securely attached cover made of metal not subject to deterioration by the lading, and all valve openings, except safety valve, must be fitted with screw plugs or caps to prevent leakage in the event of valve failure.
B77 - Other packaging are authorized when approved by the Associate Administrator.
T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the applicable liquefied compressed gases are authorized to be transported in portable tanks in accordance with the requirements of 173.313 of this subchapter.
TP21 - The wall thickness must not be less than 8 mm. Portable tanks must be hydraulically tested and internally inspected at intervals not exceeding 2.5 years.

Additional information

Emergency Response Guide (ERG) Number : 124

Other information : No supplementary information available.

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Special transport precautions : Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure valve is closed and not leaking. - Ensure valve outlet cap nut or plug (where provided) is correctly fitted. - Ensure valve protection device (where provided) is correctly fitted.

Transport by sea

UN-No. (IMDG) : 1067
Proper Shipping Name (IMDG) : DINITROGEN TETROXIDE (NITROGEN DIOXIDE)
Transport hazard class(es) (IMDG) : 2.3 (5.1, 8)
Division (IMDG) : 2.3 - Toxic gases
Subsidiary hazard (IMDG) : 5.1, 8
EmS-No. (1) : F-C
EmS-No. (2) : S-W

Other information : No supplementary information available.

Air transport

UN-No. (IATA) : 1067
Proper Shipping Name (IATA) : Nitrogen dioxide
Transport hazard class(es) (IATA) : 2.3 (5.1, 8)
Subsidiary hazard (IATA) : 5.1, 8

SECTION 15: Regulatory information

15.1. US Federal regulations

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302	
CERCLA RQ	10 lb releases to the air in amounts <1000 pounds per 24 hours which are the result of combustion and combustion-related activities are exempt from the notification requirements per 40 CFR 302.6
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb

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

Nitrogen dioxide	CAS-No. 10102-44-0	≥ 99%
Nitrogen tetroxide	CAS-No. 10544-72-6	≤ 1%

Nitrogen dioxide (10102-44-0)	
Listed on the United States SARA Section 302	
CERCLA RQ	10 lb releases to the air in amounts <1000 pounds per 24 hours which are the result of combustion and combustion-related activities are exempt from the notification requirements per 40 CFR 302.6
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb
Nitrogen tetroxide (10544-72-6)	
CERCLA RQ	10 lb listed under Nitrogen oxide NO2

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15.2. International regulations

CANADA

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)
Listed on the Canadian DSL (Domestic Substances List)

Nitrogen dioxide (10102-44-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Nitrogen dioxide (10102-44-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.2.2. National regulations

Nitrogen dioxide (Dinitrogen Tetroxide) (10102-44-0)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Nitrogen dioxide (10102-44-0)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

Nitrogen dioxide (Dinitrogen Tetroxide)(10102-44-0)	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List

Nitrogen dioxide (10102-44-0)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

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Nitrogen tetroxide (10544-72-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

Nitrogen dioxide (10102-44-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Nitrogen tetroxide (10544-72-6)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

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SECTION 16: Other information

Other information : When you mix two or more chemicals, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Before using any plastics, confirm their compatibility with this product.

Linde asks users of this product to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

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Revision date : 03/31/2025

SDS US (GHS HazCom 2012) - Linde 2022

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