



MATERIAL SAFETY DATA SHEET

Version :02

PRODUCT NAME: NITRIC ACID

CAS Number: 7697-37-2

1. IDENTIFICATION:

Product Code : 90194, 93439, 90473, 97604, 97605, 97606, 90732, 96026, 90732, 999027

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

Address : W-279, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR ROAD, RABALE,
NAVI MUMBAI - 400 701, MAHARASHTRA, INDIA.

E-mail : sales@adventchembio.com

WEBSITE : www.adventchembio.com

Company Phone Number : +91 77770 84837

2. HAZARDS IDENTIFICATION:**Hazard classification****Physical hazards**

Oxidizing liquids : Category 3

Corrosive to Metals : Category 1

Health hazards

Acute toxicity, Oral : Category 3

Acute toxicity, Dermal : Category 4

Skin irritation : Category 1

Eye irritation : Category 1

Labels elements :

Hazard symbol :



Signal word : Danger

Hazard statement

May intensify fire; oxidizer.
May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statement

Prevention

Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.



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| Response | : IF exposed or concerned: Get medical advice/ attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| Storage | : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |
| Disposal | : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. |
| Other hazards which do not result in GHS classification | : None. |

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

| Ingredient | CAS Number | Percent | Hazardous |
|-------------|------------|--------------|-----------|
| Nitric Acid | 7697-37-2 | 65.0 – 72.0% | Yes |

4. FIRST AID MEASURES:

| | |
|---|---|
| General information | : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. |
| Ingestion | : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Inhalation | : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms persist. |
| Skin contact | : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |
| Eye contact | : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. |
| Most important symptoms/effects, acute and delayed | : Toxic if inhaled. Toxic if swallowed. Toxic in contact with skin. Irritating to eyes, respiratory system and skin. |
| Indication of immediate medical attention and special treatment needed | : Symptoms may be delayed. Treat symptomatically. |



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5. FIRE FIGHTING MEASURES:

General information : Strong oxidizer - contact with other material may cause fire.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media : Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical : Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Vapor from the solvent may accumulate in container headspace resulting in flammability hazard. Heat may cause the containers to explode.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

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

7. HANDLING AND STORAGE:

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye

protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.



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8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Appropriate engineering**

controls : No data available

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance : Clear, colourless liquid with corrosive vapour.

Odor : Pungent.

Solubility : Miscible in water.

Formula : HNO_3

Molecular Weight : 63.01 g/mol

Specific Gravity : 1.41 g/cm³ at 25°C

pH : 1 (0.1 molar aqueous solution) .

Boiling Point : -122.0°C

Melting Point : -42.0°C

Flash Point : Not applicable

Vapor Density (Air=1) : 2.5

Vapor Pressure (mm Hg) : 6.4 kPa

Evaporation Rate (BuAc=1) : No data available



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10. STABILITY AND REACTIVITY:

| | |
|------------------------------------|--|
| Reactivity | : Reacts violently with strong alkaline substances. |
| Chemical stability | : Material is stable under ambient conditions. |
| Possibility of hazardous reactions | : Hazardous polymerization does not occur. |
| Conditions to avoid | : Reacts violently with strong alkaline substances. Avoid contact with strong reducing agents. Excessive heat. Contact with incompatible materials. |
| Incompatible materials | : Alcohols. Reducing agents. Metals. Alkalies. |
| Hazardous decomposition products | : In the event of fire: see section 5 |

11. TOXICOLOGICAL INFORMATION:**Information on likely routes of exposure**

| | |
|--------------|---|
| Ingestion | : Irritating. May cause nausea, stomach pain and vomiting. |
| Inhalation | : May cause damage to mucous membranes in nose, throat, lungs and bronchial system. |
| Skin contact | : Causes severe skin burns. |
| Eye contact | : Causes serious eye damage. |

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

| | |
|---|--|
| Oral Product | : No data available. |
| Dermal Product | : No data available. |
| Inhalation Product | : No data available. |
| Repeated dose toxicity Product | : No data available. |
| Skin corrosion/irritation Product | : Prolonged or repeated skin contact may cause drying, cracking, or irritation |
| Serious eye damage/eye irritation Product | : Causes serious eye damage. |
| Respiratory or skin sensitization Product | : Not a skin nor a respiratory sensitizer |
| Carcinogenicity Product | : This substance has no evidence of carcinogenic properties |
| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans | : No carcinogenic components identified. |
| US. National Toxicology Program (NTP) Report on Carcinogens | : No carcinogenic components identified. |



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US. OSHA Specifically
Regulated Substances (29 CFR 1910.1001-1050)
Germ cell mutagenicity

In vitro Product : No data available.

Reproductive toxicity
Product : No components toxic to reproduction.

Specific target organ
toxicity - single exposure
Product : Not known.

Specific target organ
toxicity - repeated
exposure Product : None known.

Aspiration hazard Product : Not classified.

Other effects : None known.

12. ECOLOGICAL INFORMATION:

Ecotoxicity
Acute hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates
Product : No data available.

Chronic hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates
Product : No data available.

Toxicity to Aquatic Plants
Product: : No data available.

Persistence and degradability

Biodegradation Product : Expected to be readily biodegradable.

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor
(BCF) Product : No data available on bioaccumulation.

Partition coefficient n-
octanol / water (log Kow)
Product : No data available.

Mobility in soil : The product is water soluble and may spread in water systems.



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Other adverse effects : Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.

13. DISPOSAL CONSIDERATION:

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION:

| | UN No. | UN proper shipping name | Hazard Class(es) | Packaging group | Marine Pollutant |
|-------------|---------|-------------------------|------------------|-----------------|------------------|
| DOT | UN 2031 | Nitric Acid | 8, 5.1 | I | No |
| IMDG | UN 2031 | Nitric Acid | 8, 5.1 | I | No |
| IATA | UN 2031 | Nitric Acid | 8, 5.1 | I | No |

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

No Data Available.

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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Issue Date : 21/04/2025

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