



# 杭州大阳化工有限公司

Hangzhou Dayangchem Co., Ltd.

## Material Safety Data Sheet

No :M-6569

### Section 1 - Product and Company Identification

**MSDS Name:** Isopropyl nitrate

**Synonyms:**

**Company Identification:** Hangzhou Dayangchem Co., Ltd.

**For information, call:** 86-571-88938639

**For information, E-mail:** infores@chinadayangchem.com

**Emergency Number:** 86-571-88938639

**For CHEMTREC assistance, call:** 86-571-88938639; FAX:86-571-88938652

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	%	EINECS#	Hazard Symbols:	Risk Phrases:
1712-64-7	Isopropyl nitrate	99	216-983-6	O, F, Xn	R 5 - R 8 - R11 -R20

Text for R-phrases: see Section 16

**Hazard Symbols:** O, F, Xn



**Risk Phrases:** R 5 - R 8 - R11 -R20

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

*Heating may cause an explosion. Contact with combustible material may cause fire. Highly flammable. Harmful by inhalation.*

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Ingestion:** May be harmful if swallowed.

**Inhalation:** Harmful if inhaled. May cause respiratory tract irritation.

**Chronic:**

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in

pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** Use water spray to cool unopened containers.

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

## Section 7 - Handling and Storage

**Handling:** Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep away from combustible material.

**Storage:** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits:**

CAS# 1712-64-7:

**Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses.

**Skin:** The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

**Clothing:** Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Respirators:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## Section 9 - Physical and Chemical Properties

**Physical State:** clear, liquid

**Color:** colourless

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 101 - 102 °C

**Freezing/Melting Point:** Not available.

**Autoignition Temperature:** Not available.

**Flash Point:** 12 °C - closed cup

**Explosion Limits:Lower:** Not available.

**Explosion Limits Upper:** Not available.

**Decomposition Temperature:** Not available.

**Solubility in water:** Not available.

**Specific Gravity/Density:** 1.04 g/mL at 20 °C

**Molecular Formula:** C<sub>3</sub>H<sub>7</sub>NO<sub>3</sub>

**Molecular Weight:** 105.09

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Heat, flames and sparks.

**Incompatibilities with Other Materials:** Strong reducing agents, Strong acids, Powdered metals

**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides (NO<sub>x</sub>)

**Hazardous Polymerization:**

## Section 11 - Toxicological Information

**RTECS#:** CAS# 1712-64-7: QU8930000

**LD50/LC50:** RTECS:

LC50 Inhalation - rat - 2 h - 29.000 mg/m<sup>3</sup>

**Carcinogenicity:** Isopropyl nitrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

## Section 12 - Ecological Information

Not available.

## Section 13 - Disposal Considerations

### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

### Contaminated packaging

Dispose of as unused product.

## Section 14 - Transport Information

	<b>IMO</b>	<b>RID/ADR</b>	<b>IATA</b>
<b>Shipping Name:</b>	ISOPROPYL NITRATE	ISOPROPYL NITRATE	ISOPROPYL NITRATE
<b>Hazard Class:</b>	3	3	3
<b>UN Number:</b>	1222	1222	1222
<b>Packing Group:</b>	II	II	II
<b>marine pollutant:</b> No			
<b>other applicable information:</b> Not available.			

## Section 15 - Regulatory Information

### European/International Regulations

European Labeling in Accordance with EC Directives

**Hazard Symbols:** O F XN

**Risk Phrases:**

R 5 Heating may cause an explosion.

R 8 Contact with combustible material may cause fire.

R11 Highly flammable.

R20 Harmful by inhalation.

**Safety Phrases:**

S 7/9 Keep container tightly closed and in a well-ventilated place.

S16 Keep away from sources of ignition - No

S17 Keep away from combustible material.

S33 Take precautionary measures against static discharges.

**WGK (Water Danger/Protection):**

CAS# 1712-64-7: Not available

Canada

**US Federal**

TSCA

CAS# 1712-64-7: Not available

## **Section 16 - Additional Information**

**Text for R-phrases from Section 2**

**MSDS Creation Date:** 19/01/2007

**Revision #1 Date:** 20/09/2008

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.*