

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Lubricon NCA  
**MSDS Number:** D-05546  
**Cancelled MSDS Number:** D-05483  
**MSDS Date:** 02/15/2001  
**Chemical Family Name:** Aqueous Solution of Calcium Nitrate and Other Minor Components  
**Product Use:** Non-Chloride Concrete Set Accelerator  
**Chemical Formula:** Mixture-NA  
**CAS # (Chemical Abstracts Service Number):** Mixture-NA

**Manufactured by:**

W.R.Grace & Co.-Conn.  
62 Whittemore Avenue  
Cambridge, MA 02140

Grace Canada, Inc.  
294 Clements Road West  
Ajax, Ontario L1S 3C6

**In Case of Emergency Call:**

In USA: (617) 876-1400 In Canada: (905) 683-8561

**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS**

| <b>Ingredient</b> | <b>CAS#</b> | <b>Percent (max)</b> |
|-------------------|-------------|----------------------|
| Calcium nitrate   | 010124-37-5 | 30-45                |

**SECTION 3 - HAZARDS IDENTIFICATION**

**Emergency Overview:**

**Warning!**

Causes severe eye irritation.  
Causes skin irritation.  
May be fatal if ingested.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

---

**HMIS Rating:**

|                                |                   |
|--------------------------------|-------------------|
| Health:                        | 2                 |
| Flammability:                  | 1                 |
| Reactivity:                    | 0                 |
| Personal Protective Equipment: | B (See Section 8) |

**Potential Health Effects:**

**Inhalation:**

Causes respiratory tract irritation. If prolonged exposure to vapor or mist occurs, effects may be more severe resulting in coughing and breathing difficulties.

Effects include: Coughing and shortness of breath.

**Eye Contact:**

Eye contact can cause severe irritation.

Prolonged eye contact can result in tissue damage.

**Skin Contact:**

Skin contact causes irritation.

Prolonged skin contact can result in irritation causing redness and itching.

**Skin Absorption:**

Not expected to be harmful if absorbed through the skin.

**Ingestion:**

Harmful or fatal if ingested.

Effects include the following: No other effects expected unless listed below.

Large amounts of Calcium nitrate, taken by mouth may cause nausea, vomiting, cyanosis (due to methemoglobin formation), abnormally slow respiration, collapse and coma.

Repeated small doses may cause a fall in blood pressure, rapid pulse, headache and visual disturbances. .

---

**SECTION 4 - FIRST AID MEASURES:**

**Skin Contact:**

If discomfort or irritation persists, consult a physician.

Wash with soap and water.

Remove contaminated clothing and wash before reuse.

**Eye Contact:**

Call a physician.

Flush eyes with water for at least 15 minutes while holding eyelids open.

**Ingestion:**

Call a physician or poison control center immediately.

Never give anything by mouth to an unconscious person.

Do not induce vomiting.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

**Inhalation:**

If symptoms develop, get fresh air. If symptoms persist, consult a physician.  
If breathing has stopped, give artificial respiration then oxygen if needed.

---

**SECTION 5 - FIRE AND EXPLOSION HAZARD DATA**

|                                   |                |
|-----------------------------------|----------------|
| <b>Flash Point:</b>               | Not Applicable |
| <b>Flash Point Method:</b>        | Not Applicable |
| <b>Lower Explosion Limit:</b>     | Not Available  |
| <b>Upper Explosion Limit:</b>     | Not Available  |
| <b>Auto-Ignition Temperature:</b> | Not Available  |

**NFPA Rating:**

|                      |   |
|----------------------|---|
| <b>Health:</b>       | 1 |
| <b>Flammability:</b> | 1 |
| <b>Reactivity:</b>   | 0 |

**Extinguishing Media:** In case of fire, use water spray, dry chemical, Carbon dioxide or alcohol foam.

**Special Fire Fighting Procedures:**

Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapors or products of combustion exist. Water may be used to cool containers to prevent pressure build-up and possible auto-ignition or explosion. Avoid breathing hazardous vapors or products of combustion, keep upwind. Isolate area and keep unnecessary people away. Prevent run-off from fire control or dilution from entering streams or drinking water supplies.  
No special procedures specific to this product.

**Unusual Fire and Explosion Hazards:**

This material, if dried, will become an oxidizer which may provide oxygen to combustible materials.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

---

**SECTION 6 - ACCIDENTAL RELEASE MEASURES:**

**Spills/Leaks:**

Use proper personal protective equipment. Do not flush to sewer or allow to enter waterways. Keep unnecessary people away.

Do not dry this material. If dried, this product would be an oxidizer and classified as a reactive waste according to the EPA (40 CFR § 261.3) Liquid waste is not classified as hazardous by the EPA.

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container. For large spills, dike area and pump waste material into closed containers for disposal or reclamation.

---

**SECTION 7 - HANDLING AND STORAGE**

**Precautionary Measures:**

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

---

**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT**

**EXPOSURE GUIDELINES (US)**

| Ingredient      | ACGIH TLV      |      |         | OSHA PEL |      |         | Other |
|-----------------|----------------|------|---------|----------|------|---------|-------|
|                 | TWA            | STEL | Ceiling | TWA      | STEL | Ceiling |       |
| Calcium nitrate | -              | -    | -       | -        | -    | -       | -     |
| Triethanolamine | 5 mg/m3<br>TWA | -    | -       | -        | -    | -       | -     |

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

**EXPOSURE GUIDELINES (CANADA)**

Employers should consult provincial regulatory limits for exposure guidelines which may vary locally.

**Engineering Controls:** Not generally required.

**Personal Protective Equipment:**

**Respiratory Protection:** Respiratory protection is not normally required. However, a chemical cartridge respirator with organic vapor cartridge is required at or above the applicable exposure limits (Consult above Exposure Guidelines). If no limits exist, use an approved respirator whenever a vapor or mist is generated or if respiratory irritation occurs. Supplied air respirator (SCBA) is required at exposure levels above the capabilities of a chemical cartridge respirator.

**Skin Protection:** Rubber or other impervious gloves should be worn to prevent skin contact.

**Eye Protection:** At minimum, safety glasses with side shields should be worn where exposure to excessive dust or spray is likely.

**Work/Hygienic Practices:** Use good personal hygiene practices.  
None beyond those noted above.

---

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

|                                               |                                              |
|-----------------------------------------------|----------------------------------------------|
| <b>Physical State:</b>                        | Liquid                                       |
| <b>Appearance/Odor:</b>                       | Light brown liquid with no significant odor. |
| <b>Odor Threshold: (ppm)</b>                  | Not Determined                               |
| <b>pH:</b>                                    | 8 - 9                                        |
| <b>Vapor Pressure: (Mm Hg)</b>                | ~15 @ 25°C                                   |
| <b>Vapor Density: (Air = 1)</b>               | Same as Water                                |
| <b>Solubility In Water:</b>                   | Complete                                     |
| <b>Specific Gravity: (Water = 1)</b>          | 1.25 - 1.32                                  |
| <b>Evaporation Rate: (Butyl Acetate = 1)</b>  | ~Equal to Water                              |
| <b>Boiling Point:</b>                         | >212°F/100°C                                 |
| <b>Viscosity:</b>                             | Unknown                                      |
| <b>Bulk Density: (Pounds/Cubic Foot)(Pcf)</b> | Not Applicable                               |
| <b>% Volatiles (gr/L): (70°F) (21°C)</b>      | ~55% (As Water)                              |

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

---

**SECTION 10 - STABILITY AND REACTIVITY**

**Chemical Stability:** Stable  
**Conditions To Avoid:** Organic materials, Reducing agents, Most metals,  
Reducing agent, ammonia and hydrazine.  
**Hazardous Polymerization:** Will not polymerize.  
**Hazardous Decomposition** Oxides of nitrogen.  
**Products:**

---

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Ingredient(No data unless listed.)**      **CAS Number**      **LD50 and LC50**  
Calcium nitrate      010124-37-5      Oral LD50 Rat : 302 mg/kg

**Carcinogenicity:**

| Ingredient      | IARC<br>Group 1 | IARC<br>Group 2A | IARC<br>Group 2B | NTP<br>Known | NTP<br>Suspect | OSHA |
|-----------------|-----------------|------------------|------------------|--------------|----------------|------|
| Calcium nitrate | No              | No               | No               | No           | No             | No   |

**Mutagenicity:** No information available.  
**Teratogenicity:** No information available.  
**Reproductive Toxicity:** No information available.

---

**SECTION 12 - ECOLOGICAL INFORMATION**

**Environmental Fate:** No data available for product.  
**Ecotoxicity:** No data available for product.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

---

**SECTION 13 - DISPOSAL CONSIDERATIONS**

**Waste Disposal Procedures:** Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing waste for disposal. According to EPA (40 CFR § 261), waste of this product is not defined as hazardous. Dispose of waste in accordance with all applicable regulations. Do not dry this material. If dried, this material would be an oxidizer and classified as a reactive waste #D001 according to the EPA (40 CFR § 261). Liquid waste is not defined as hazardous by EPA.

---

**SECTION 14 - TRANSPORTATION INFORMATION**

|                                        |                |
|----------------------------------------|----------------|
| <b>Proper Shipping Name:</b>           | Not Applicable |
| <b>UN/NA Number:</b>                   | Not Applicable |
| <b>Domestic Hazard Class:</b>          | Nonhazardous   |
| <b>Surface Freight Classification:</b> | Not Applicable |
| <b>Label/Placard Required:</b>         | Not Applicable |

---

**SECTION 15 - REGULATORY INFORMATION**

**REGULATORY CHEMICAL LISTS:**

**CERCLA (Comprehensive Response Compensation and Liability Act):**  
**(None present unless listed below)**

| <b><u>Chemical Name</u></b> | <b><u>CAS #</u></b> | <b><u>Wt %</u></b> | <b><u>CERCLA RQ</u></b> |
|-----------------------------|---------------------|--------------------|-------------------------|
|-----------------------------|---------------------|--------------------|-------------------------|

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

**SARA Title III (Superfund Amendments and Reauthorization Act)**

**SARA Section 312/Tier I & II Hazard Categories:**

|                          |     |
|--------------------------|-----|
| Health Immediate (acute) | Yes |
| Health Delayed (chronic) | No  |
| Flammable                | No  |
| Reactive                 | No  |
| Pressure                 | No  |

**302 Reportable Ingredients (Identification Threshold 1%.):**

| <b><u>Chemical Name</u></b> | <b><u>CAS #</u></b> | <b><u>Wt %</u></b> | <b><u>SARA 302<br/>TPQ</u></b> |
|-----------------------------|---------------------|--------------------|--------------------------------|
|-----------------------------|---------------------|--------------------|--------------------------------|

**313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):**

| <b><u>Chemical Name</u></b> | <b><u>CAS #</u></b> | <b><u>Wt %</u></b> |
|-----------------------------|---------------------|--------------------|
| Diethanolamine              | 000111-42-2         | .0077              |
| Nitrate compounds           | RR-01770-9          | 43.06              |

**National Volatile Organic Compound Emission Standards For Architectural Coatings:**

**Volatile Organic Content:** (gr/L) Not Applicable

**WHMIS Classification(s):** D2 B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR). This MSDS contains all the information required by the CPR.

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

**State Regulatory Information:**

**California Proposition 65:**

This product does not contain substances known to the state of California to cause cancer, birth defects or other reproductive harm.

**Massachusetts Hazardous Substance List(Identification threshold 0.001%(1ppm)):**

**Chemical Name**

**CAS #**

**Wt %**

**New Jersey Hazardous Substance List(Identification threshold (0.1%)):**

**Chemical Name**

**CAS #**

**Wt %**

Nitrate compounds

RR-01770-9

43.

**Pennsylvania Hazardous Substance List(Identification threshold 0.01%):**

**Chemical Name**

**CAS #**

**Wt %**

**CHEMICAL INVENTORY STATUS:**

**All chemicals in this product are listed or exempt from listing in the following countries:**

| US   | CANADA |      | EUROPE        | AUSTRALIA | JAPAN | KOREA | PHILIPPINES    |
|------|--------|------|---------------|-----------|-------|-------|----------------|
| TSCA | DSL    | NDSL | EINECS/ELINCS | AICS      | ENCS  | ECL   | PICCS          |
| Yes  | Yes    | No   | Yes           | Yes       | Yes   | Yes   | Not Determined |

**SECTION 16 - OTHER INFORMATION**

**Non-Hazardous Ingredient Disclosure:**

**Chemical Name**

**CAS Number**

Water

007732-18-5

Nitrate compounds

RR-01770-9

**W. R. GRACE**  
**MATERIAL SAFETY DATA SHEET**

Product Name: Lubricon NCA  
MSDS ID Number: D-05546

MSDS Date: 02/15/2001

---

**Prepared by:** EH&S Department  
**Approved by:** EH&S Department  
**Approved Date:** 05/18/2000

**Disclaimer:**

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

o:\ehsdocs\concrete\Lubricon NCA D-05546 (Q).doc