# Natro-Cel™ AL

## 1: Identification

**Product identifier:** Natro-Cel™ AL
**Other means of identification:** Ammonium salts of alkyl phosphate on silicon dioxide
**Supplier:**
NATROCHEM, Inc.
P.O. Box 1205
Savannah, GA 31402-1205
912-236-4464
**Recommended use:** Mold release agent
**Restrictions on use:** Not applicable.
**Emergency phone number:** CHEMTREC (USA) 800-424-9300
CHEMTREC (Int'l) 202-483-7616

## 2: Hazard(s) identification

**GHS classification:** Not classified.
**GHS label elements**
**Signal word:** WARNING
**Symbol(s):**

**Hazard statements:** Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
**Hazards not otherwise classified:** May form combustible dust concentrations in the air.
**Precautionary statements:**
**Prevention:** Avoid breathing dust.
Wash hands thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
**Response:** IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists: get medical attention.
IF exposed or concerned: Call a POISON CENTER/ doctor.
In case of fire: Use appropriate media for surrounding fire to

extinguish.

**Storage:** Store in a dry place. Store in a closed container.

**Disposal:** Dispose of contents/container in accordance with local/regional/national/international regulations.

## 3: Composition

**Substance/mixture:** Mixture

| Ingredient | Synonyms | CAS number | Concentration (%) |
|---|---|---|---|
| Neutralized mixed alkylphosphates | | - | 55-70 |
| Alcohols, C12-16 | | 68855-56-1 | 2-7 |
| n-butanol | | 71-36-3 | 0-3 |
| Silica, amorphous, precipitated, and gel | | 112926-00-8 | 26-30 |

Contains no detectable crystalline silica (detection limit <0.01% by weight)
Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## 4: First-aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM, OR PHYSICIAN immediately; have SDS information available. Never give anything by mouth to an unconscious or convulsing person.

**Description of necessary first aid measures**

**Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Most important symptoms/effects, acute and delayed.**

**Potential acute health effects**

**Eye contact:** Causes serious eye irritation.

| | |
|---|---|
| **Inhalation:** | Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs.<br>Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| **Skin contact:** | Causes skin irritation. May cause an allergic skin reaction. Prolonged or repeated contact may dry skin and cause irritation. |
| **Ingestion:** | Irritating to mouth, throat, and stomach. |

**Over-exposure signs/symptoms**

| | |
|---|---|
| **Eye contact:** | Adverse symptoms may include the following:<br>Pain or irritation<br>Watering<br>Redness |
| **Inhalation:** | Adverse symptoms may include the following:<br>Coughing<br>Respiratory tract irritation |
| **Skin contact:** | Adverse symptoms may include the following:<br>Dryness<br>Irritation<br>Redness |
| **Ingestion:** | No specific data. |

**Indication of immediate medical attention and special treatment needed, if necessary**

| | |
|---|---|
| **Notes to physician:** | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| **Specific treatments:** | No specific treatment. |
| **Protection of first-aiders:** | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

**See toxicological information (Section 11)**

## 5: Fire-fighting measures

**Extinguishing media**

| | |
|---|---|
| **Suitable extinguishing media:** | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media:** | None known. |
| **Specific hazards arising from the chemical:** | No specific fire or explosion hazard. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. |
| **Hazardous thermal decomposition products:** | Decomposition products may include the following:<br>Carbon dioxide<br>Carbon monoxide<br>Nitrogen oxides<br>Phosphorus oxides |
| **Special protective actions for firefighters:** | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any |

| | |
|---|---|
| | personal risk or without suitable training. |
| **Special protective equipment for firefighters:** | Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

## 6: Accidental release measures

**Personal precautions, protective equipment, and emergency procedures**

| | |
|---|---|
| **For non-emergency personnel:** | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not touch or walk through spilled material. Product forms slippery surface when combined with water. Put on appropriate personal protective equipment. |
| **For emergency responders:** | If specialized clothing is required to deal with the spillage, take note of any information in **Section 8** on suitable and unsuitable materials. See also the information immediately above in "For non-emergency personnel". |
| **Environmental precautions:** | Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). |

**Methods and materials for containment and cleaning up**

| | |
|---|---|
| **Small spill:** | Vacuum or sweep up material and place in a designated, labeled waste container. |
| **Large spill:** | Vacuum or sweep up material and place in a designated, labeled waste container. |

**See Section 1 for emergency contact information.**
**See Section 8 for information on appropriate personal protective equipment.**
**See Section 13 for additional waste treatment information.**

## 7: Handling and storage

**Precautions for safe handling**

| | |
|---|---|
| **Protective measures:** | Put on appropriate personal protective equipment (see **Section 8**). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. |
| **Advice on general occupational hygiene:** | Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Avoid alteration of product properties before use. Calcining (which may result in crystalline silica formation) or mixing with additives may alter toxicological properties.<br>See also **Section 8** for additional information on hygiene measures. |

**Conditions for safe storage, including any incompatibilities:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area away from incompatible materials (see **Section 10**) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers.

## 8: Exposure controls/personal protection

**Control parameters**

Occupational exposure limits

| **Components with limit values that require monitoring at the workplace:** | |
|---|---|
| **n-butanol** | |
| OSHA 1994 | TWA: 50 ppm; CEIL: 50 ppm |
| ACGIH | CEIL: 50 ppm, 152 mg/m$^3$ |
| RQMT | STEL: 150 ppm; CEIL: 152 ppm |
| OSHA 1989 | CEIL: 150 mg/m$^3$ |
| ACGIH TLV | TWA: 20 ppm 8 hours |
| NIOSH REL | CEIL: 150 mg/m$^3$, 50 ppm |
| OSHA PEL 2013 | TWA: 300 mg/m$^3$ 8 hours, 100 ppm 8 hours |
| OSHA PEL 1989 | CEIL: 150 mg/m$^3$, 50 ppm |

**Recommended monitoring procedures:** If this product contains ingredients with exposure limits, personal, workplace atmosphere, or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls:** Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure that they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures:** Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory, and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: splash goggles.

**Skin protection**

| | |
|---|---|
| **Hand protection:** | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. When handling hot material, wear heat-resistant gloves that are able to withstand the temperature of molten product. |
| **Body protection:** | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Other skin protection:** | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| **Respiratory protection:** | 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. |

## 9: Physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state:** | Powder, solid, or granular solid. |
| **Color:** | White to off-white. |
| **Odor:** | Ammoniacal. |
| **Odor threshold:** | Not available. |
| **pH:** | Not available. |
| **Melting/freezing point:** | Not available. |
| **Boiling point and range:** | Not available. |
| **Flash point:** | Not available. |
| **Evaporation rate:** | Not available. |
| **Flammability:** | Not available. |
| **Flammability or explosive limits:** | Not available. |
| **Vapor pressure:** | Not available. |
| **Vapor density:** | Not available. |
| **Relative density:** | Not available. |
| **Solubility:** | Not available. |
| **Partition coefficient: n-octanol/water:** | Not available. |
| **Auto-ignition temperature:** | Not available. |
| **Decomposition temperature:** | Not available. |
| **Viscosity:** | Not applicable. |

## 10: Stability and reactivity

**Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability:** This product is stable.

**Possibility of hazardous reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid:** High temperature (>800°C) treatment (calcining). Avoid alteration of product properties before use. Calcining (which may result in crystalline silica formation) or mixing with additives may alter toxicological properties.
Avoid generating dust.
Refer to protective measures listed in **Sections 7 and 8**.

**Incompatible materials:** Reactive or incompatible with the following materials: acids, oxidizing materials, strong alkalis.

**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11: Toxicological information

**Information on toxicological effects**

**Acute toxicity**

| Ingredient | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| n-butanol | LC50 inhalation<br>LD50 dermal<br>LD50 oral | Rat<br>Rabbit<br>Rat | 8000 ppm<br>3400 mg/kg<br>790 mg/kg | 4 hours<br>-<br>- |

**Conclusion/summary:** Oral ALD (rats) > 11,000 mg/kg (product)

**Irritation/corrosion**

| Ingredient | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| n-butanol | Eyes – severe irritant<br>Skin – moderate irritant | Rabbit<br>Rabbit | -<br>- | 24 hours 2 mg<br>24 hours 20 mg | -<br>- |

**Conclusion/summary**

**Skin:** Causes skin irritation

**Eyes:** Causes eye irritation

**Respiratory:** May cause respiratory tract irritation

**Sensitization**

**Conclusion/summary:**

**Skin:** May cause skin sensitization. (Based on testing of similar products and/or the components.)

**Respiratory:** No known significant effects or critical hazards.

**Mutagenicity:**

**Conclusion/summary:** No known significant effects or critical hazards.

**Carcinogenicity**

**Conclusion/summary:** No known significant effects or critical hazards.

**Classification**

| Ingredient | OSHA | IARC | NTP |
|---|---|---|---|
| Silica, amorphous, precipitated, and gel | - | 3 | - |

**Carcinogen classification code:**
**IARC: 1, 2A, 2B, 3, 4**
**NTP: [Known/Reasonably anticipated] to be a human carcinogen**
**OSHA: +**
**Not listed/regulated: -**

**Reproductive toxicity**

**Conclusion/summary:** No known significant effects or critical hazards.

**Teratogenicity**

**Conclusion/summary:** No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure)**

| Ingredient | Category | Route of exposure | Target organs |
|---|---|---|---|
| n-butanol | 3 | Not applicable. | Respiratory tract irritation and narcotic effects. |

**Specific target organ toxicity (repeated exposure)**

Not available.

**Target organs** Contains material which may cause damage to the following organs: upper respiratory tract, eyes.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure:** Routes of entry anticipated: oral, dermal, inhalation.

**Potential acute health effects**

**Eye contact:** Causes serious eye irritation.

**Inhalation:** Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs. Exposure to decomposition products may cause a health hazards. Serious effects may be delayed following exposure.

**Skin contact:** Causes skin irritation. May cause an allergic skin reaction. Prolonged or repeated contact may dry skin and cause irritation.

**Ingestion:** Irritating to mouth, throat, and stomach.

**Symptoms related to the physical, chemical, and toxicological characteristics**

**Eye contact:** Adverse symptoms may include the following:
Pain or irritation
Watering
Redness

**Inhalation:** Adverse symptoms may include the following:
Coughing
Respiratory tract irritation

**Skin contact:** Adverse symptoms may include the following:
Dryness
Irritation
Redness

**Ingestion:** No specific data.

**Delayed and immediate effects and also chronic effects from short- and long-term exposure**

**Conclusion/summary:** An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers.

Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/m$^3$ per periods from six months to two years. Although precipitated silica was temporarily deposited in animals' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of all studies performed by, or known to, PPG indicated a very low order of pulmonary activity for synthetic precipitated silicas. PPG recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

**Short-term exposure**

**Potential immediate effects** No significant irritation expected other than possible mechanical irritation.

**Potential delayed effects** Prolonged or repeated contact may dry skin and cause irritation.

**Long-term exposure**

**Potential immediate effects** Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Potential delayed effects** Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Potential chronic health effects**

**General:** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity:** No known significant effects or critical hazards.

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards.

**Developmental effects:** No known significant effects or critical hazards.

**Fertility effects:** No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

| Route | ATE value |
|---|---|
| Dermal | 19833.3 mg/kg |

## 12: Ecological information

**Toxicity**

| Ingredient | Result | Species | Exposure |
|---|---|---|---|
| Silica, amorphous, precipitated, and gel | NOEC > 1000 ppm | Daphnia – *daphnia magna* | 24 hours |
| | Acute NOEC > 10000 ppm fresh water | Fish | 96 hours static |
| | Acute NOEC > 10000 ppm | Fish – *brachydanio rerio* | 4 days static |

**Persistence and degradability**

| Ingredient | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Silica, amorphous, | - | - | Not readily |

| | | | |
|---|---|---|---|
| precipitated, and gel | | | |

**Bioaccumulative potential**

| Ingredient | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Silica, amorphous, precipitated, and gel | - | 0 | low |

**Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$):** Not available.

**Other adverse effects:** No known significant effects or critical hazards.

## 13: Disposal considerations

**Disposal methods:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**Disposal should be in accordance with applicable regional, national, and local laws and regulations.**

**Refer to Sections 6, 7, and 8 for additional information on accidental release measures, handling and storage, and exposure controls.**

## 14: Transport information

| | DOT | IMDG | IATA |
|---|---|---|---|
| **UN number** | Not regulated. | Not regulated. | Not regulated. |
| **UN proper shipping name** | - | - | - |
| **Transport hazard class(es)** | - | - | - |
| **Packing group** | - | - | - |
| **Environmental hazards** | No. | No. | No. |
| **Marine pollutant substances** | Not applicable. | Not applicable. | Not applicable. |
| **Additional information** | - | - | - |

**Special precautions for user:** **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not available.

## 15: Regulatory information

**Inventory status**

| | |
|---|---|
| **United States inventory (TSCA 8b):** | All components are listed or exempted. |
| **Australia inventory (AICS):** | All components are listed or exempted. |
| **Canada inventory (DSL):** | All components are listed or exempted. |
| **China inventory (IECSC):** | All components are listed or exempted. |
| **Europe inventory (REACH):** | All components are listed or exempted. |
| **Japan inventory (ENCS):** | Please contact your supplier for information on the inventory status of this material. |
| **Korea inventory (KECI):** | All components are listed or exempted. |

## 16: Other information

**Hazardous Material Identification System (USA)**

| | |
|---|---|
| **HEALTH** | **2** |
| **FLAMMABILITY** | **1** |
| **REACTIVITY** | **0** |

**PERSONAL PROTECTION**

*** - chronic effects**

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1901.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the Nation Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J.Keller 800-327-6868.**

**The customer is responsible for determining the PPE code for this material.**

| | | |
|---|---|---|
| **Key to abbreviations:** | ATE | Acute toxicity estimate |
| | BCF | Bioconcentration factor |
| | GHS | Globally harmonized system of classification and labeling of chemicals |
| | IATA | International Air Transport Association |
| | IBC | Intermediate bulk container |
| | IMDG | International Maritime Dangerous Goods |
| | LogPow | Logarithm of the octanol/water partition coefficient |
| | MARPOL 73/78 | International convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978. (MARPOL = marine pollution) |
| | UN | United Nations |

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