

## Safety Data Sheet (SDS)

OSHA Haz Com Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Printing date 12/31/2013

Reviewed on 12/31/2013

### \* 1 Identification

- **Product identifier**
- **Trade name:** Nu-Shield™
- **Article number:** Part Number: 4294-75
- **Product description** Coil Protectant. For Professional Use Only.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Nu-Calgon  
2008 Altom Court  
St. Louis, MO 63146  
(314) 469-7000  
(800) 554-5499  
www.nucalgon.com
- **Emergency telephone number:** Chemtrec 800-424-9300 or outside USA 703-527-3887

### \* 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Aerosol 1 H222                      Extremely flammable aerosol.



GHS08 Health hazard

STOT SE 2            H371-H335-H336    May cause damage to organs. May cause respiratory irritation. May cause drowsiness or dizziness.



GHS07

Acute Tox. 4            H332                      Harmful if inhaled.

Skin Irrit. 2            H315                      Causes skin irritation.

Eye Irrit. 2B            H320                      Causes eye irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

methanol

- **Hazard statements**

H222                      Extremely flammable aerosol.

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- H332 Harmful if inhaled.
- H315 Causes skin irritation.
- H320 Causes eye irritation.
- H371-H335-H336 May cause damage to organs. May cause respiratory irritation. May cause drowsiness or dizziness.

• **Precautionary statements**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P211 Do not spray on an open flame or other ignition source.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
- P362 Take off contaminated clothing and wash before reuse.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P405 Store locked up.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

• **NFPA ratings (scale 0 - 4)**



• **HMIS-ratings (scale 0 - 4)**



• **Other hazards**

• **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* 3 Composition/information on ingredients**

• **Chemical characterization: Mixtures**

• **Description:** Mixture of the substances listed below with nonhazardous additions.

• **Dangerous components:**

107-98-2	1-methoxy-2-propanol ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	25-50%
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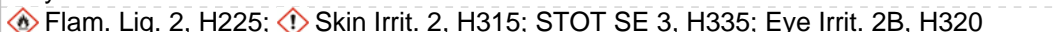
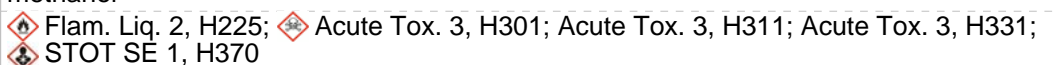
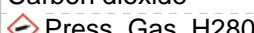
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64-17-5	ethyl alcohol 	15-35%
67-56-1	methanol 	15-35%
124-38-9	Carbon dioxide 	2-12%

### \* 4 First-aid measures

- **Description of first aid measures**

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness, place patient securely in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** Give large amounts of water. If symptoms persist consult doctor.

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Special hazards arising from the substance or mixture** No further relevant information available.

- **Advice for firefighters**

- **Protective equipment:** Mouth respiratory protective device.

### \* 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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\* **7 Handling and storage**

- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
 Keep ignition sources away - Do not smoke.  
 Protect from heat.  
 Protect against electrostatic charges.  
 Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.  
 Do not spray on a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
 Store in a cool location.  
 Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
 Keep receptacle tightly sealed.  
 Do not gas tight seal receptacle.  
 Store in cool, dry conditions in well sealed receptacles.  
 Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

\* **8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

<b>Components with limit values that require monitoring at the workplace:</b>	
<b>107-98-2 1-methoxy-2-propanol</b>	
REL	Short-term value: 540 mg/m <sup>3</sup> , 150 ppm Long-term value: 360 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 369 mg/m <sup>3</sup> , 100 ppm Long-term value: 184 mg/m <sup>3</sup> , 50 ppm
<b>64-17-5 ethyl alcohol</b>	
PEL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV	Short-term value: 1880 mg/m <sup>3</sup> , 1000 ppm
<b>67-56-1 methanol</b>	
PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 325 mg/m <sup>3</sup> , 250 ppm Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
TLV	Short-term value: 328 mg/m <sup>3</sup> , 250 ppm Long-term value: 262 mg/m <sup>3</sup> , 200 ppm Skin; BEI

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<b>124-38-9 Carbon dioxide</b>	
PEL	Long-term value: 9000 mg/m <sup>3</sup> , 5000 ppm
REL	Short-term value: 54.000 mg/m <sup>3</sup> , 30.000 ppm Long-term value: 9000 mg/m <sup>3</sup> , 5000 ppm
TLV	Short-term value: 54.000 mg/m <sup>3</sup> , 30.000 ppm Long-term value: 9000 mg/m <sup>3</sup> , 5000 ppm

• **Ingredients with biological limit values:**

<b>67-56-1 methanol</b>	
BEI	15 mg/L urine end of shift Methanol (background, nonspecific)

• **Additional information:** The lists that were valid during the creation were used as basis.

• **Exposure controls**

• **Personal protective equipment:**

• **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

• **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

• **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

• **Eye protection:** Tightly sealed goggles

### \* 9 Physical and chemical properties

• **Information on basic physical and chemical properties**

• **General Information**

• **Appearance:**

**Form:**

Aerosol

**Color:**

See product specification

• **Odor:**

Mild

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- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - Melting point/Melting range:** Not determined.
  - Boiling point/Boiling range:** 64 °C (147 °F)
- **Flash point:** 13 °C (55 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 270 °C (518 °F)
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- **Explosion limits:**
  - Lower:** 2.3 Vol %
  - Upper:** 44.0 Vol %
- **Vapor pressure @ 20 °C (68 °F):** 128 hPa (96 mm Hg)
- **Density @ 20 °C (68 °F):** 0.852 g/cm<sup>3</sup> (7.11 lbs/gal)
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 95.6 %
  - VOC content:** 95.6 %
  - Solids content:** 1.0 %
- **Other information** No further relevant information available.

### \* 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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### \* 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**67-56-1 methanol**

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

64-17-5 ethyl alcohol

1

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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### \* 14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es)**
- **DOT**



Limited Quantity

- **Class** Non-Regulated Material
- **Label** Limited Quantity

- **ADR**



Limited Quantity

- **Class** Non-Regulated Material
- **Label** Limited Quantity
- **ADN/R Class:** Non-Regulated Material

- **IMDG, IATA**



Limited Quantity

- **Class** ID8000
- **Label** Limited Quantity
- **Packing group**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

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**\* 15 Regulatory information**

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

• **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

• **Section 313 (Specific toxic chemical listings):**

67-56-1 | methanol

• **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

• **Proposition 65**

• **Chemicals known to cause cancer:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

• **Chemicals known to cause developmental toxicity:**

64-17-5 | ethyl alcohol

67-56-1 | methanol

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

64-17-5 | ethyl alcohol

A3

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

• **OSHA-Ca (Occupational Safety & Health Administration)**

Corrosive to eyes

• **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms**



GHS02   GHS07   GHS08

• **Signal word** Danger

• **Hazard-determining components of labeling:**

methanol

• **Hazard statements**

- H222                      Extremely flammable aerosol.
- H332                      Harmful if inhaled.
- H315                      Causes skin irritation.

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H320 Causes eye irritation.  
 H371-H335-H336 May cause damage to organs. May cause respiratory irritation. May cause drowsiness or dizziness.

• **Precautionary statements**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P211 Do not spray on an open flame or other ignition source.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
- P362 Take off contaminated clothing and wash before reuse.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P405 Store locked up.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

• **State Right to Know**

107-98-2	1-methoxy-2-propanol ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	25-50%
64-17-5	ethyl alcohol ⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	15-35%
67-56-1	methanol ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT SE 1, H370	15-35%
124-38-9	Carbon dioxide ⚠ Press. Gas, H280	2-12%
67762-90-7	Siloxanes and Silicones, di-Me, reaction products with silica	≤ 2.5%

None of the ingredients is listed.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Date of preparation / last revision** 12/31/2013 / 5

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation

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IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

• **\* Data compared to the previous version altered.**

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