

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

Sid Harvey Part # 4294-75

SDS # Z0983

* 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/vapours/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	25-50%
	Flam. Liq. 3, H226; STOT SE 3, H336	

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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%

* 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:** CO₂, 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**

- **Components with limit values that require monitoring at the workplace:**

107-98-2 1-methoxy-2-propanol

REL Short-term value: 540 mg/m³, 150 ppm

Long-term value: 360 mg/m³, 100 ppm

TLV Short-term value: 369 mg/m³, 100 ppm

Long-term value: 184 mg/m³, 50 ppm

64-17-5 ethyl alcohol

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1880 mg/m³, 1000 ppm

67-56-1 methanol

PEL Long-term value: 260 mg/m³, 200 ppm

REL Short-term value: 325 mg/m³, 250 ppm

Long-term value: 260 mg/m³, 200 ppm

Skin

TLV Short-term value: 328 mg/m³, 250 ppm

Long-term value: 262 mg/m³, 200 ppm

Skin; BEI

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124-38-9 Carbon dioxide	
PEL	Long-term value: 9000 mg/m ³ , 5000 ppm
REL	Short-term value: 54.000 mg/m ³ , 30.000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm
TLV	Short-term value: 54.000 mg/m ³ , 30.000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm
Ingredients with biological limit values:	
67-56-1 methanol	
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/cm³ (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	25-50%
	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	
64-17-5	ethyl alcohol	15-35%
	⚠ Flam. Liq. 2, H225; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	
67-56-1	methanol	15-35%
	⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT SE 1, H370	
124-38-9	Carbon dioxide	2-12%
	⚠ Press. Gas, H280	
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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