

Safety Data Sheet

Canadian WHMIS Standards & GHS Rev04



Printing date 12/31/2013

Reviewed on 12/31/2013

* 1 Product and Company Identification

- **Product identifier**
- **Trade name: Nu-Shield™**
- **Article number:** Part number: 4294-75
- **Relevant identified uses of the substance or mixture and uses advised against**
For Professional Use Only.
- **Product description** Coil Protectant.
- **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**
 - **Hazard description:** Mild
 - **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of international guidelines.
Warning! Pressurized container.
 - **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
-
- **Label elements**
 - **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with directives on hazardous materials.
 - **Code letter and hazard designation of product:**
  Xn Harmful
F+ Extremely flammable
 - **Hazard-determining components of labeling:**
methanol
 - **Risk phrases:**
12 Extremely flammable.
20 Harmful by inhalation.
36/38 Irritating to eyes and skin.
68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
 - **Safety phrases:**
2 Keep out of the reach of children.
9 Keep container in a well-ventilated place.
13 Keep away from food, drink and animal feedingstuffs.
15 Keep away from heat.
16 Keep away from sources of ignition - No smoking.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

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- 25 Avoid contact with eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- 33 Take precautionary measures against static discharges.
- 36/37 Wear suitable protective clothing and gloves.
- 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.
- 52 Not recommended for interior use on large surface areas.

• **Classification in accordance with Directive 75/324/EEC:** Extremely flammable

• **Hazard description:**

• **WHMIS-symbols:**

B5 - Flammable aerosol

D2B - Toxic material causing other toxic effects



• **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:**

CAS: 107-98-2	1-methoxy-2-propanol	25-50%
EINECS: 203-539-1	R10-67	
Index number: 603-064-00-3	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	
RTECS: UB 7700000		

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CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 RTECS: KQ 6300000	ethyl alcohol ☒ Xi R36/37/38; ☒ F R11 ☒ Flam. Liq. 2, H225; ☒ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	15-35%
CAS: 67-56-1 EINECS: 200-659-6 Index number: 603-001-00-X RTECS: PC 1400000	methanol ☒ T R39; ☒ Xn R21/22; ☒ Xi R36/37/38; ☒ F R11 ☒ Flam. Liq. 2, H225; ☒ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☒ STOT SE 1, H370	15-35%
CAS: 124-38-9 EINECS: 204-696-9 RTECS: FF 6400000	Carbon dioxide R44 ☒ 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.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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	
EL	Short-term value: 75 ppm Long-term value: 50 ppm
EV	Short-term value: 550 mg/m ³ , 150 ppm Long-term value: 365 mg/m ³ , 100 ppm
64-17-5 ethyl alcohol	
EL	Short-term value: 1000 ppm
EV	Long-term value: 1.900 mg/m ³ , 1.000 ppm
67-56-1 methanol	
EL	Short-term value: 250 ppm Long-term value: 200 ppm Skin
EV	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin

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124-38-9 Carbon dioxide	
EL	Short-term value: 15000 ppm Long-term value: 5000 ppm
EV	Short-term value: 54.000 mg/m ³ , 30.000 ppm Long-term value: 9.000 mg/m ³ , 5.000 ppm

- **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
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - Melting point/Melting range:** Not determined.
 - Boiling point/Boiling range:** 64 °C
- **Flash point:** 13 °C

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- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** 270 °C
- **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:** 128 hPa
- **Density @ 20 °C:** 0.852 g/cm³
- **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 %
 - 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.

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.

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- **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.

* **14 Transport information**

- **UN-Number**
- **DOT, TDG, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name**
- **DOT, TDG, ADN, IMDG, IATA** Non-Regulated Material

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- **Transport hazard class(es)**
- **DOT**



Limited Quantity

- **Class**
- **Label**
- **TDG (Transport dangerous goods):**

Non-Regulated Material
Limited Quantity



Limited Quantity

- **Class**
- **Label**
- **ADN/R Class:**

Non-Regulated Material
Limited Quantity
Non-Regulated Material

- **IMDG, IATA**



Limited Quantity

- **Class**
- **Label**
- **Packing group**
- **DOT, TDG, IMDG, IATA**
- **Environmental hazards:**
- **Marine pollutant:**
- **Special precautions for user**
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
- **UN "Model Regulation":**

ID8000
Limited Quantity
Non-Regulated Material
No
Not applicable.
Not applicable.
-

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.
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Section 313 (Specific toxic chemical listings):	67-56-1 methanol
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<ul style="list-style-type: none"> • TSCA (Toxic Substances Control Act): 		
All ingredients are listed.		
<ul style="list-style-type: none"> • Proposition 65 		
<ul style="list-style-type: none"> • Chemicals known to cause cancer: 		
None of the ingredients is listed.		
<ul style="list-style-type: none"> • Chemicals known to cause reproductive toxicity for females: 		
None of the ingredients is listed.		
<ul style="list-style-type: none"> • Chemicals known to cause reproductive toxicity for males: 		
None of the ingredients is listed.		
<ul style="list-style-type: none"> • Chemicals known to cause developmental toxicity: 		
64-17-5	ethyl alcohol	
67-56-1	methanol	
<ul style="list-style-type: none"> • Carcinogenic categories 		
<ul style="list-style-type: none"> • EPA (Environmental Protection Agency) 		
None of the ingredients is listed.		
<ul style="list-style-type: none"> • TLV (Threshold Limit Value established by ACGIH) 		
64-17-5	ethyl alcohol	A3
<ul style="list-style-type: none"> • NIOSH-Ca (National Institute for Occupational Safety and Health) 		
None of the ingredients is listed.		
<ul style="list-style-type: none"> • OSHA-Ca (Occupational Safety & Health Administration) 		
Corrosive to eyes		
<ul style="list-style-type: none"> • Canadian substance listings: 		
<ul style="list-style-type: none"> • Canadian Domestic Substances List (DSL) 		
All ingredients are listed.		
<ul style="list-style-type: none"> • Canadian Ingredient Disclosure list (limit 0.1%) 		
64-17-5	ethyl alcohol	
<ul style="list-style-type: none"> • Canadian Ingredient Disclosure list (limit 1%) 		
107-98-2	1-methoxy-2-propanol	
67-56-1	methanol	
124-38-9	Carbon dioxide	

- **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:**



Xn Harmful
F+ Extremely flammable

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

- **Risk phrases:**

12 Extremely flammable.
20 Harmful by inhalation.

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36/38 Irritating to eyes and skin.
68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

Safety phrases:

- 2 Keep out of the reach of children.
- 9 Keep container in a well-ventilated place.
- 13 Keep away from food, drink and animal feedingstuffs.
- 15 Keep away from heat.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
- 25 Avoid contact with eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- 33 Take precautionary measures against static discharges.
- 36/37 Wear suitable protective clothing and gloves.
- 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.
- 52 Not recommended for interior use on large surface areas.

National regulations:

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

- 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.

Relevant phrases

- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H320 Causes eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H370 Causes damage to organs.
- R10 Flammable.
- R11 Highly flammable.
- R21/22 Harmful in contact with skin and if swallowed.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R39 Danger of very serious irreversible effects.
- R44 Risk of explosion if heated under confinement.
- R67 Vapours may cause drowsiness and dizziness.

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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.

Date of preparation / last revision 12/31/2013 / 5**Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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