



Cool Worx (4158-20, 4158-22)

Safety Data Sheet

According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)
Issue date: 03/27/2026 Version: 1.0

SECTION 1 Identification

1.1. GHS Product identifier

Product name : Cool Worx (4158-20, 4158-22)
Product code : 4158-20, 4158-22

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Graphene Powered Coil Coating

1.4. Supplier's details

Manufacturer

Nu-Calgon
2611 Schuetz Road
St. Louis, MO
63043
US
T 314-469-7000 / 800-554-5499
www.nucalgon.com

1.5. Emergency phone number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA/US)

2.2. GHS label elements, including precautionary statements

GHS CA/US labeling

Supplementary information : Based on analogue data, the EPA identified potential concerns for worker inhalation exposure (Human Health Hazard – specific target organ toxicity) and exposure to the environment (Environment Hazard – May be toxic to aquatic life) if the substance is used or processed in spray, dip and/or roll coating applications. US OSHA does not classify for environmental hazards; therefore, there is no impact to the environmental hazard classification for this substance. The lung overload effects triggering the EPA human health hazard concern were only predicted in an acute inhalation study at concentrations which exceed the US OSHA classification criteria cut-off concentrations for Specific Target Organ Toxicity – Repeated Exposure (STOT-RE). The 28-day repeated dose exposure study reported a lack of lung inflammatory markers at the maximum concentration tested. There has been no chronic concentration identified that produces significant health effects and the acute concentrations linked by the EPA to lung-overload concerns exceed the STOT-RE cut-off for classification and are not relevant for OSHA hazard classification.

2.3. Other hazards which do not result in classification

No additional information available

Cool Worx (4158-20, 4158-22)

Safety Data Sheet

According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Graphene	GRAPHENE	CAS-No.: 1034343-98-0	1 - 5

Comments : CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with the amended HPR as of December 2022.
US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash skin with plenty of water. Obtain medical attention if irritation persists.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.

First-aid measures after ingestion : Do not induce vomiting. If vomiting occurs have person lean forward. Never give anything by mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible). Medical personnel should be made aware of substance(s) involved and take measures for self protection. Show this safety data sheet to the doctor in attendance. Avoid contact with skin and eyes. Keep out of the reach of children.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : Prolonged inhalation may be harmful.

Symptoms/effects after skin contact : Prolonged or repeated contact may dry skin and cause irritation.

Symptoms/effects after eye contact : Direct contact with eyes may cause temporary irritation.

Symptoms/effects after ingestion : May cause stomach distress, nausea or vomiting.

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

Other medical advice or treatment : Symptoms may be delayed. Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.2. Specific hazards arising from the chemical

Fire hazard : During fire, gases hazardous to health may be formed. In case of fire or explosion do not breathe fumes.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : May include and are not limited to: Oxides of carbon.

Cool Worx (4158-20, 4158-22)

Safety Data Sheet

According to SOR/2015-17, Hazardous Products Regulations (HPR) (amended 2022) & According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS) (amended 2024)

5.3. Special protective actions for fire-fighters

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|--------------------------------|--|
| Firefighting instructions | : In case of fire: Stop leak if safe to do so. Do not enter fire area without proper protective equipment, including respiratory protection. Move containers from fire area if it can be done without personal risk. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : In the event of a significant spillage : Notify authorities if product enters sewers or public waters. Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Environmental precautions | : Avoid release to the environment. |

6.2. Methods and materials for containment and cleaning up

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|-------------------------|---|
| For containment | : Stop leaks if it can be done without personal risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. |
| Methods for cleaning up | : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). This product is prohibited from entering into any water stream/system. |
| Other information | : This material and its container must be disposed of in a safe way, and as per local legislation. |

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

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|-----------------------------------|--|
| Precautions for safe handling | : Avoid contact with skin and eyes. Avoid breathing vapors, mist. Do not taste or swallow. Ensure good ventilation of the work station. Wear personal protective equipment. Handle and open container with care. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |

7.2. Conditions for safe storage, including any incompatibilities

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|---------------------|---|
| Storage conditions | : Keep out of reach of children. Store tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). |
| Packaging materials | : Always store product in container of same material as original container. |

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

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| Appropriate engineering controls | : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| Environmental exposure controls | : Avoid release to the environment. |

Cool Worx (4158-20, 4158-22)

Safety Data Sheet

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8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection:

Wear protective gloves. Confirm with a reputable supplier first. Use Nitrile rubber gloves that are ASTM F739 tested.

Eye protection:

Wear eye protection

Skin and body protection:

Wear suitable protective clothing to protect against dermal exposures.

Respiratory protection:

Required to wear a National Institute for Occupational Safety and Health (NIOSH) certified respirator with an Assigned Protection Factor (APF) of 1000 during spray coating application and APF of 10 during all other uses.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Color	: Black
Odor	: Paint
Odor threshold	: No data available
pH	: 9.3 – 10.1
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °C (212 °F)
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 2.37 kPa at 20°C
Relative vapor density at 20°C	: No data available
Relative density	: 1 – 1.3
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidising.
Explosion limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

Cool Worx (4158-20, 4158-22)

Safety Data Sheet

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Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Keep away from heat and direct sunlight. Do not mix with other chemicals.
Incompatible materials	: Strong oxidizing agents.
Hazardous decomposition products	: May include and are not limited to: Oxides of carbon.

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Graphene (1034343-98-0)

LD50 oral rat	> 2000 mg/kg body weight ECHA
LC50 Inhalation - Rat	> 1.99 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)
LC50 Inhalation - Rat (Dust/Mist)	> 1.99 mg/l/4h ECHA

Skin corrosion/irritation	: Not classified pH: 9.3 – 10.1
Serious eye damage/irritation	: Not classified pH: 9.3 – 10.1
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Likely routes of exposure	: Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation	: Prolonged inhalation may be harmful.
Symptoms/effects after skin contact	: Prolonged or repeated contact may dry skin and cause irritation.
Symptoms/effects after eye contact	: Direct contact with eyes may cause temporary irritation.
Symptoms/effects after ingestion	: May cause stomach distress, nausea or vomiting.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general	: See below for route-specific details.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified.

Graphene (1034343-98-0)

EC50 96h - Algae [1]	62.2 mg/l Test organisms (species): Chlorella pyrenoidosa
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12.2. Persistence and degradability

Cool Worx (4158-20, 4158-22)

Persistence and degradability	Not rapidly degradable
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Graphene (1034343-98-0)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Waste treatment methods	: Dispose of the material collected according to regulations.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling, disposal or collection.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG
Not regulated

DOT
Not regulated

IMDG
Not regulated

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IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/789(^9) and the IBC Code(^10)

Not applicable

SECTION 15 Regulatory information

US Federal regulations: The manufacture, process, distribution, and disposal of the graphene component within this mixture within the U.S. must be in accordance with the requirements and conditions described in the Consent Order for P-25-0018.

All components of this product are present on DSL

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Graphene	CAS-No. 1034343-98-0	1 – 5%
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This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other Information

Issue date : 03/27/2026

Other information : For an updated SDS, please contact the supplier or manufacturer listed on the first page of the document.

The information in the safety data sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.