SAFETY DATA SHEET

SECTION 1 Product And Company Identification

PRODUCT

PRODUCT NAME: **9819 UNDERCOAT SPRAY GRADE**
PRODUCT DESCRIPTION: Preparation/Mixture
PRODUCT USE: Car underbody protection

MANUFACTURER INFORMATION

INNOVATIVE MANUFACTURING INC
861 DERWENT WAY
DELTA, BC, CANADA, V3M 5R4
(604) 522-2811

EMERGENCY INFORMATION

INNOVATIVE MANUFACTURING CONTACT: 1-800-667-8246
24-HOUR EMERGENCY AND SDS HELP: CANUTEC: 613-966-6666

Section 2 – Hazards Identification

GHS Hazard Classification

Flammable Liquid	Category 3
Skin corrosive/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 2

Signal word Danger

Hazard Statement:
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H320 Causes eye irritation.
H335 May cause respiratory irritation.
H401 Toxic to aquatic life.

Precautionary Statements:

Prevention
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical powder, alcohol-resistant foam, carbon dioxide for extinction.

Storage P235 Keep cool.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal P501 Dispose of contents/container: Follow the waste disposal requirements of your country, state, or local authorities.

Other hazards 0 % of mixture consists of ingredients of unknown acute toxicity

Section 3 – Composition/Information on Ingredients

COMPONENTS	CAS No.	% BY WEIGHT
Asphalt	8052-42-4	45-50
Mineral Spirits	8052-41-3	30-35
Mica	12001-26-2	10-12
Hydrated aluminum-magnesium silicate	12174-11-7	10-12
Kaolin	1332-58-7	1-3
Quaternary Ammonium Compound	61789-77-3	1-2

Section 4 – First Aid Measures

Description of First Aid Measures

Inhalation If inhalation of cured product particles, fumes, vapors, or mist occurs remove person to fresh air. Drink water to clear throat or blow nose to clear. If not breathing, give artificial respiration to give oxygen by trained personnel and get immediate medical attention.

Skin Contact Clean any exposed skin with warm soapy water if possible. If not, and a waterless hand cleaner is used, it should be without pumice. Do not use solvents or thinners to remove material form skin. Get medical attention if irritation persists or develops.

Eye Contact Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Get immediate attention if irritation persists.

Ingestion If swallowed do not induce vomiting. If vomiting occurs, keep head lower than hips to avoid aspiration of vomit into the lungs which can cause inflammation or pneumonitis. Call poison control center or get immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries after Inhalation Can cause central nervous system depression. May cause dizziness and dowdiness.

Symptoms/Injuries after Skin Contact Direct skin contact may cause temporary redness.

Symptoms/Injuries after Eye Contact Direct eye contact may cause temporary redness.

Symptoms/Injuries after Ingestion May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May have laxative effects.

Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5 – Fire Fighting Measures

Suitable extinguishing media Dry chemical powder, water fog, foam, carbon dioxide.

Unsuitable extinguishing media Straight streams of water.

Special hazards arising from the substance or mixture

When heated, fumes may burn if ignition source is provided. Petroleum asphalt fumes can explode if emitted in an enclosed environment and supplied with an ignition source. Burning product may cause thick black smoke. Containers exposed to intense heat from fires should be cooled with water or prevent vapor pressure buildup which could result in container rupture.

Hazardous thermal decomposition products

Carbon dioxide, carbon monoxide, metal oxide/oxides

Protective actions fire-fighters

Wear standard protective equipment and self contained breathing apparatus for firefighting if necessary.

Section 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. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 in "For non-emergency personnel"

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil. Waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Remove all sources of ignition. Ventilate the area. Prevent further leakage or spillage if safe to do so. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Spilled material will create slippery surfaces. Clean up promptly. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (See section 13). Contact the proper local authorities.

Section 7 – Handling and Storage

Precautions for safe handling

Use only outdoors or in a well-ventilated area. Wear proper protective equipment when handling this material. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes or clothing. Keep away from heat and open flames. No smoking. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting/equipment. Keep away from oxidizing agents. Keep away from incompatibles. Label containers appropriately. Wash thoroughly after handling. Keep containers closed when not in use.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. No smoking. Empty containers retain residue (liquid and/or vapor) and can be dangerous. Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Keep cool. Keep container tightly closed. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials:

Strong acids or base, oxidizing agents, halogenated hydrocarbons and selected amines.

Section 8 – Exposure Controls / Personal Protection

Control Parameters

Exposure Guidelines

Components	ACGIH TLV	OSHA PEL	NIOSH REL
Mineral Spirits 8052-41-3	100 ppm	500 ppm 2900 mg/m³	TWA: 350 mg/m³
			CEIL: 1800 mg/m³
Asphalt 8052-42-4	TWA: 0.5 mg/m³	-	Ceiling: 5 mg/m³
			fume 15 min

Mica 12001-26-2	TWA: 3 mg/m³	TWA: 3 mg/m³	-
Hydrated aluminum-magnesium silicate 12174-11-7	TWA: 0.1 mg/m³ respirable dust	TWA: 15 mg/m³ nuisance dust	-
Kaolin 1332-58-7	10 mg/m³ , TWA, Total dust	15 mg/m³ , TWA, Total dust 5 mg/m³ , TWA, Respirable	-

Appropriate engineering control

Engineering Controls Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear appropriate protective glasses or splash goggles as described by 20 CFR1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin/Body Protection Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.

Respiratory Protection A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapor. Avoid contact with eyes. Wash hands and face after handling.

Section 9 – Physical and Chemical Properties

	PRODUCT CRITERIA
APPEARANCE - COLOR	Black coloured liquid
PHYSICAL STATE	Viscous liquid
ODOR	Slight solvent odor
ODOR THRESHOLD	No data available
PH	No data available
MELTING POINT/FREEZING POINT	No data available
INITIAL BOILING POINT AND BOILING RANGE	Greater than 157°C(315°F)
FLASH POINT	43°C(109.4°F) Pensky-Martens Closed Cup ASTM D-93
EVAPORATION RATE	0.11 (n-butyl acetate = 1)
FLAMMABILITY (solid, gas)	No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	LEL: 0.7%, UEL: 5.6% (V/V)
VAPOR PRESSURE	1.21 mmHg @ 20°C(68°F) / 6.75 mmHg @ 38°C(100°F)
VAPOR DENSITY (AIR=1)	No data available
RELATIVE DENSITY (@25°C)	1.05
SOLUBILITY(IES)	Insoluble in water
OXIDIZING PROPERTIES	No data available
PARTITION COEFFICIENT: n-octanol/water	No data available
AUTO IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY	Approximately 5400 mPas @ 77°F(25°C)
VOC CONTENT	333 g/L

Section 10 – Stability and Reactivity

Reactivity: Not normally reactive.

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: Avoid all possible sources of ignition(heat, spark, open flame), avoid contact with incompatible materials

Incompatibility (Materials to Avoid): Strong acids or bases, oxidizing agents, halogenated hydrocarbons and selected amines.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, ozone, hydrogen sulfide, sulfur and various hydrocarbons.

Section 11 – Toxicological Information

GHS Required Criteria	Toxicity Criteria	Toxicity Information	Comments	Chemical Constituent
Acute Toxicity	LD50 (Oral/Rat)	>5001 mg/kg		8052-42-4 Asphalt
	LC50 (Inhalation/Rat male)	-		
	LD50 (Dermal/Rabbit)	>2001 mg/kg		
	LD50 (Oral/Rat)	>5000 mg/kg		8052-41-3 Mineral Spirits
	LC50 (Inhalation/Rat male)	5.5mg/l 4 hours		
	LD50 (Dermal/Rabbit)	>3000 mg/kg		
Skin Corrosion/Irritation	Causes skin irritation		Cat 2	
Serious Eye Damage / Eye Irritation	Causes eye irritation		Cat 2B	
Respiratory or Skin Sensitization	Not classified			
Germ Cell Mutagenicity	Not classified			
Carcinogenicity	NTP	-		Asphalt 8052-42-4
	IARC*	Group 2B		
	OSHA	-		
	CA Prop 65	-		
Reproductive Toxicity	Not classified			
STOT - Single Exposure	May cause respiratory irritation, narcotic effects		Cat 3	
STOT - Repeated Exposure	Route of exposure: inhalation. Target organs: lungs/digestive tract		Cat 1	
Aspiration Hazard	May be fatal if swallowed and enters airways.		Cat 1	
Ames Test	No information is available			

*** Component information:** The IARC monograph (Vol.103.2013, Bitumen and Bitumen Emissions) defines Asphalt as :Group 2B, Possible Carcinogen to Humans". This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is non volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen.

Section 12 – Ecological Information

ECOTOXICITY Expected to be toxic aquatic organisms. May cause long-term adverse effects in the aquatic environment. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface water.

ECOTOXICITY DATA

Ecotoxicity	**Chemical Name**	
	8052-41-3 Mineral Spirits	
Toxicity to algae	EC50 / 96 h or 72 h	0.58 - 1.2 mg/L/72 hours (Green algae)
	NOEC / 96 h or 72 h	0.16 mg/L (Green algae)
	M factor	1
Toxicity to fish	EC50 / 48 h	2.1 - 4.2 mg/L (Bluegill sunfish)
	NOEC / 21 days	Not available
	M factor	None
Toxicity to Daphnia	LC 50 / 96 h	0.42 - 2.3 mg/L (Water flea)
	NOEC / 21 days	0.1 - 0.37 mg/L (Water flea)
	M factor	1

Persistence and degradability Not readily biodegradable.

Bioaccumulative potential

Product/Ingredient Name	**Log P_{ow}**	**BCF**	**Potential**
Mineral Spirits	3.16 to 7.06	-	High

Mobility in soil This product has low solubility and floats, and expected to migrate from water to the land.

PBT and vPvB assessment No information is available

Other adverse effects No information is available

Section 13 – Disposal Considerations

Waste from residues/unused products: Follow the waste disposal requirements of your country, state, or local authorities.

Contaminated packaging: Contaminated packaging material should be disposed of as stated above for residues and unused product.

RCRA If this product, as supplied, becomes a waste in the US, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. it is the responsibility of the waster generator to determine the proper waste identification and disposal method.

Section 14 – Transportation Information

Regulatory Information	UN number	UN proper shipping name	Transport Hazard Class(es)	Packing Group
DOT	UN 1268	PETROLEUM DISTILLATES, N.O.S.	3	PG III
	In Containers of 454 L or less, this product is not classified as a Dangerous Good according to exception 173.150 f(1-2)			
TDG	UN 1268	PETROLEUM DISTILLATES, N.O.S.	3	PG III
	Not regulated for rail or road shipment if packaged in non-bulk containers (450 Litres or less each). Limited Quantity exemption may be used if product is in containers of 5 litres or less, per Section 1.17of TDG.			
IMDG	UN 1268	PETROLEUM DISTILLATES, N.O.S.	3	PG III
	May be shipped as LIMITED QUANTITY in inner containers no larger than 5 litres.			
ICAO/IATA	UN 1268	PETROLEUM DISTILLATES, N.O.S.	3	PG III
	-			

Special precautions for user Appropriate advice on safety must accompany the package.

Environmental hazards Toxic to aquatic life. See Ecological Information Section 12.

Section 15 – Regulatory Information

All components used in this product are on the TACS Inventory and the Canadian DSL.

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CANADA:
WHMIS-2015: This SDS is in compliance with WHMIS 2015 (HPR / new HPA).

Section 16 – Other Information

HMIS Rating:		**NFPA Rating:**	
Health	2	Health	2
Flammability	2	Flammability	2
Physical Hazard	0	Instability	0
Personal Protection	x	Special	-

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Prepared By: Joey Wang

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