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Asphalt Additives

- Mining Chemicals
- Asphalt Additives
 - Liquid Anti-Strips
 - Emulsifiers
 - Patching & Cold Mix
 - Solvents
 - Release Agents
 - Odor Neutralizers
- Fertilizer Chemicals
- Nitrogen Additives
- Industrial Minerals
- Water Treatment
- Contract Manufacturing



deScent Hot Asphalt Deodorant!
 deScent is an additive that ELIMINATES THE ODORS produced by hot asphalt. It was created with a high flashpoint which allows maximum asphalt odor neutralization! Being odorless can be **so easy!**

A small amount of our proprietary odor neutralizer will quickly and effectively neutralize many of hot mix asphalt's objectionable odors.

D-Scent 0119	Technical Data Sheet
Description	D-Scent 0119 is a proprietary formulation that is used in small quantities to neutralize some of the odors that may be produced by hot asphalt cement. D-Scent 0119 has a high flash point, unlike many of the low flash point products currently being marketed for asphalt odor neutralization.
Typical Properties	Viscosity, 25 °C: 196 cps Specific Gravity, 25°C: 0.97-1.01 Flash Point (Closed cup) > 190° C
Features	N/A
Applications	D-Scent 0119 is typically added at a rate of three or four liters per tank truck of asphalt (0.01-0.02 %). The optimum use level should be determined by trial evaluations. The asphalt cement source and composition as well as the plant's operating temperatures will effect the proper dosage rate. The amount of D-Scent 0119 used per truck of liquid asphalt should be carefully controlled to just neutralize the asphalt odors. It is recommended that each user initially treated incoming asphalt shipments with two liters of D-Scent 0119 then increase the use level in one-half liter increments until the desired result is obtained. Excessive use of D-Scent 0119 will produce a strong aroma that is typically not desired.
Packaging	N/A
Storage and Handling	Refer to MSDS prior to handling this material. D-Scent 0119 is available in 420-lb non-returnable drums and IBC containers from our manufacturing location in Mulberry, Florida.
TSCA Compliance	N/A

[Printable PDF Data Sheet](#)

All suggestions and data are based on information and tests we believe to be reliable. Insofar as applications by prospective users may differ from those recommended, it is suggested the user conduct tests and determine the suitability of the product to his process. No warranty for the application of this product is expressed or implied.



deScent 0119 – Odor Neutralizer

Description:

deScent 0119 is a proprietary additive that effectively neutralizes and reduces emissions of odor-causing compounds produced by hot asphalt cement.

Product Attributes:

deScent 0119 is proven to effectively reduce emissions of most potent odor-causing compounds in asphalts including hydrogen sulfide, dimethyldisulfide, thiophene, benzenethiol, and methylbenzene thiol. An independent study of odor emissions in two different roofing-grade asphalts, conducted in August 2009 by Dr. Clifford Lange of Auburn University, concluded that the addition of deScent 0119 at a 0.02% wt/wt dosage produced a greater than 60% reduction of most odor causing compounds. Dr. Lange also concluded that, "deScent 0119 acts as an odor suppressant rather than an odor-masking agent. deScent 0119 is effective at reducing odorous emissions in asphalt and the magnitude of reductions in hydrogen sulfide and other sulfur compounds is unusual and highly desirable." Dr. Lange's methodology of analysis utilized headspace gas chromatography to measure reduction of odor-causing compounds.

deScent 0119 is a noncorrosive and nonhazardous substance that will not affect asphalt chemical properties or performance characteristics. deScent 0119 is fluid at low temperatures and has a high flash point compared to other odor additive products.

Physical Properties:

Appearance at 77° F	Thin black fluid
Viscosity at 77° F	146 cps
Pour Point	<0° F
Density at 77° F	8.24 lbs/ gallon
Flash Point	>180° F
Hazard	USDOT Nonhazardous, Noncorrosive

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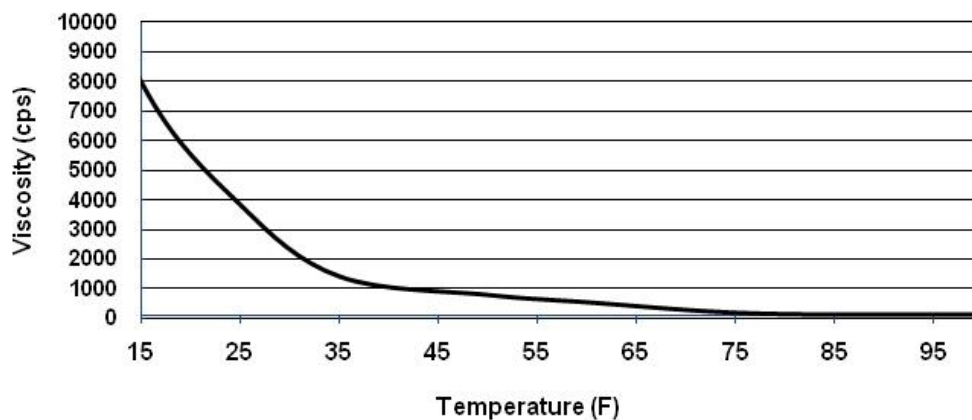
<http://www.roadscience.net>





deScent 0119—Odor Neutralizer

deScent 0119



Usage Level:

The typical deScent 0119 dosage level is 0.02% for paving grade and 0.02 -0.03% for roofing grade asphalts. The optimum dosage level can vary slightly with different asphalt sources. If after adding typical dosage level, an asphalt odor can be detected, increase deScent 0119 dosage rate by 0.01% until no odor can be detected. If, on the other hand, the deScent 0119 product odor can be detected, repeat procedure by decreasing dosage rate by 0.01% until no odor can be detected. It is recommended to determine optimum dosage rate in laboratory prior to use.

Product Stability:

deScent 0119 will remain stable and efficacious in hot asphalt cement at typical application and storage temperatures for up to several days. Product volatilization will occur over time. The volatilization rate is proportional to storage temperature of the asphalt, amount of headspace in storage tank, and degree of venting in the tank. If asphalt is stored at elevated temperatures for a prolonged period or in storage tanks with significant headspace and/or venting, deScent 0119 may have to be reapplied to asphalt for complete odor neutralization.

Storage and Handling:

Carbon steel is recommended for bulk storage tanks and transfer lines – deScent 0119 will impart a minimal corrosion rate of less than 0.001 in/yr to carbon steel storage tank walls at recommended storage temperatures.

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deScent 0119—Odor Neutralizer

Storage Temperature - In colder climates, applying heat to deScent 0119 may be required to maintain a product viscosity conducive for pumping. deScent 0119 can be easily pumped at 32° F with a corresponding viscosity of less than 2000 cps. deScent 0119 is formulated to be heat stable, however storage temperatures in excess of 100° F should be avoided. deScent 0119 freezing point is below 0°F. If additive becomes frozen, apply heat gradually to avoid localized overheating of additive near heat transfer surfaces until desired temperature and/or viscosity is achieved.

Applying Heat - 300 Series stainless or carbon steel is recommended for heat transfer surfaces.

Bulk storage tank - If steam or hot oil is used for storage tank heat source, 300 Series stainless or carbon steel heating coils are recommended. In colder climates, storage tanks should be insulated to conserve heat.

Tote & drum containers – A cartridge immersion heating element inserted into tote or drum access hole is recommended for applying heat to additive. Heating element should be low wattage to minimize additive localized heating and it is recommended that all metal components are made of 300 Series stainless or carbon steel. Heating element dimensions of approximately 3-feet in length and 1-inch in diameter should suffice. A propeller mixer can be used to enable quicker heat transfer, but may not be necessary. Electric heat blankets wrapped around the tote or drum can also be used to provide insulation and heat to additive, although the rate of heat transfer will be lesser than that of an immersion heating element.

Ensure storage tank or container has air-tight sealed – do not allow deScent 0119 to become contaminated with water or other contaminants as additive viscosity may increase and additive quality may degrade.

Always handle deScent 0119 additive in accordance with Materials Safety Data Sheet (MSDS) and proper safety procedures.

To request additional product technical information or samples, contact your local Road Science representative or call 877 354 1851.

ZA90990 November 2012

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1. Identification

Product identifier deScent™ TBP

Other means of identification

Product Code ZA91110

Recommended use Odor control.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Road Science

Address 6502 S. Yale Avenue
Tulsa, OK 74136

Telephone EHS Contact Phone Number 863.578.1221
(US):

E-mail MSDSinfo@arrmaz.com

Emergency phone number CANUTEC (Canadian (613) 996-6666
Transport.):
CHEMTREC (US (800) 424-9300
Transportation):
ArrMaz QA 24-hr Number (863) 578-1206
(US):

2. Hazard(s) identification

Physical hazards Flammable liquids Category 4

Health hazards Acute toxicity, oral Category 5

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Sensitization, skin Category 1B

Germ cell mutagenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May be harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing genetic defects. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	93% of the mixture consists of component(s) of unknown acute oral toxicity. % of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
De-odorizing Agent		Proprietary	60 - < 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Move containers from fire area if you can do so without risk.
Unusual fire & explosion hazards	None known.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Avoid inhalation of vapors or mists. Avoid inhalation of vapors. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

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. Eye wash facilities and emergency shower must be available when handling this product. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Dark brown liquid at room temperature

Physical state

Liquid.

Form

Liquid.

Color

Brown.

Odor

Pine

Odor threshold

Not available.

pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	165 °F (74 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	3.87 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	60 cP
Viscosity temperature	77 °F (25 °C)
Other information	
Density	8.14 lb/gal
Density temperature	77 °F (25 °C)
Flammability class	Combustible IIIA estimated
Specific gravity	0.98
Specific gravity temperature	77 °F (25 °C)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air, CO ₂ or moisture, over prolonged periods. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Acids. Bases, alkalies (organic).
Hazardous decomposition products	Carbon oxides. Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Causes skin irritation. May cause serious eye irritation. May be harmful if swallowed. May cause an allergic skin reaction. May cause respiratory irritation.

Components	Species	Test Results
De-odorizing Agent (CAS Proprietary)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 4000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not available.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity Not classified. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not classified. This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Respiratory tract irritation.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified. May be harmful if swallowed and enters airways.

Chronic effects Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

12. Ecological information

Ecotoxicity Toxic to aquatic life.

Components	Species	Test Results
De-odorizing Agent (CAS Proprietary)		
Aquatic		
<i>Chronic</i>		
Crustacea	EC50 Daphnia	6.4 mg/l, 48 hours
Fish	LC50 Fish	29 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	
UN number	Not available.
UN proper shipping name	NA1993; Combustible liquid, N.O.S. (Cyclohexanone); Class 3; PG III (CYCLOHEXANONE RQ = 5,000 lbs)
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

Further Information
Bulk containers greater than 119 gallons (450 liters) shipping within the United States must be classified with the Proper Shipping Name of: NA1993; Combustible liquid, N.O.S. (Cyclohexanone); Combustible; PG III. A combustible liquid shipped in a non-bulk package less than or equal to 119 gallons is excluded from regulation as a hazardous material [49 CFR 173.150(f)].

DOT



General information
IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

WHMIS status Controlled

WHMIS classification
B3 - Combustible Liquids
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	07-16-2014
Revision date	10-08-2014
Version #	02
HMIS® ratings	Health: 2* Flammability: 2 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 2 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.
Revision Information	Product and Company Identification: Product and Company Identification Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Toxicological information: Aspiration hazard Toxicological information: Carcinogenicity Toxicological information: Mutagenicity Toxicological information: Reproductivity Toxicological information: Respiratory sensitization Toxicological information: Inhalation GHS: Classification

1. Identification

Product identifier deScent™ 0119

Other means of identification

Product Code ZA90990

Recommended use Odor control

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Road Science
Address 6502 S. Yale Avenue
 Tulsa, OK 74136
Telephone EHS Contact Phone Number 863.578.1221
 (US):
E-mail MSDSinfo@arrmaz.com
Emergency phone number CANUTEC (Canadian (613) 996-6666
 Transport.):
 CHEMTREC (US (800) 424-9300
 Transportation):
 ArrMaz QA 24-hr Number (863) 578-1206
 (US):

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Acute toxicity, oral	Category 5
	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1B
	Germ cell mutagenicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Specific target organ toxicity, repeated exposure	Category 1	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word None.

Hazard statement May be harmful if swallowed. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing genetic defects. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell.
Storage	Not available.
Disposal	Not available.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
De-odorizing Agent		Proprietary	99 - < 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Move containers from fire area if you can do so without risk.
Unusual fire & explosion hazards	None known.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Avoid inhalation of vapors or mists. Avoid inhalation of vapors. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits**

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

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. Eye wash facilities and emergency shower must be available when handling this product. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Avoid contact with eyes. Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties**Appearance**

Dark brown liquid at room temperature.

Physical state

Liquid.

Form

Liquid.

Color

Brown.

Odor

Pine.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

165 °F (74 °C)

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	3.87 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	60 cP
Viscosity temperature	77 °F (25 °C)

Other information

Density	8.14 lb/gal
Density temperature	77 °F (25 °C)
Flammability class	Combustible IIIA estimated
Specific gravity	0.98
Specific gravity temperature	77 °F (25 °C)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air, CO ₂ or moisture, over prolonged periods. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Acids. Bases, alkalies (organic).
Hazardous decomposition products	Carbon oxides. Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled. Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.
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Information on toxicological effects

Acute toxicity	May be harmful if swallowed. Harmful if inhaled. Causes skin irritation. May cause serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.
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Product	Species	Test Results
deScent™ 0119 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	4000 mg/kg estimated
<i>Oral</i>		
LD50	Rat	4049.3828 mg/kg estimated

Components	Species	Test Results
De-odorizing Agent (CAS Proprietary)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 4000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	May cause sensitization by skin contact.
Respiratory sensitization	Not classified.
Skin sensitization	Causes skin irritation. May cause an allergic skin reaction.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not classified. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	Not classified. This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Respiratory tract irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not classified. May be harmful if swallowed and enters airways.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

12. Ecological information

Ecotoxicity Toxic to aquatic life.

Product	Species	Test Results
deScent™ 0119 (CAS Mixture)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Daphnia	29.2 mg/l, 48 hours estimated
Fish	LC50 Fish	46 mg/l, 96 hours estimated
Components	Species	Test Results
De-odorizing Agent (CAS Proprietary)		
Aquatic		
<i>Chronic</i>		
Crustacea	EC50 Daphnia	6.4 mg/l, 48 hours
Fish	LC50 Fish	29 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	Not available.
UN proper shipping name	NA1993; Combustible liquid, N.O.S. (Cyclohexanone); Class 3; PG III (Contains CYCLOHEXANONE, < 60%. RQ = 5,000 lbs)
Transport hazard class(es)	
Class	Combustible Liquid
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Further Information

Bulk containers greater than 119 gallons (450 liters) shipping within the United States must be classified with the Proper Shipping Name of: NA1993; Combustible liquid, N.O.S. (Contains Cyclohexanone, < 60%); Combustible; PG III. A combustible liquid shipped in a non-bulk package less than or equal to 119 gallons is excluded from regulation as a hazardous material [49 CFR 173.150(f)].

DOT



15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	09-18-2013
Revision date	11-11-2014
Version #	04
HMIS® ratings	Health: 2* Flammability: 2 Physical hazard: 0
NFPA ratings	Health: 2 Flammability: 2 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.
Revision Information	Composition / Information on Ingredients: Disclosure Overrides Physical & Chemical Properties: Multiple Properties Physical and chemical properties: Appearance Physical and chemical properties: Odor Toxicological information: Respiratory or skin sensitization Toxicological information: Skin contact Transport Information: Material Transportation Information Transport information: General information