



RECLAIMED ASPHALT PAVEMENT

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name

CAS No.

Trade Name(s)

Reclaimed Asphalt Pavement

Mixture

Mixture

RAP

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)

Uses Advised Against

Recycle into road paving asphalt

None.

Details of the supplier of the safety data sheet

Company Identification

Weldon Materials

141 Central Ave

Westfield, NJ 07090

Telephone

908-233-4444

Emergency telephone number

Emergency Phone No.

Not classified as dangerous for supply/use. Please contact the supplier above during normal business hours.

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) / GHS Classification

Not classified as dangerous for supply/use.

Label elements

Hazard Symbol

Signal Word(s)

Hazard Statement(s)

Precautionary Statement(s)

None

None

None

None

Other hazards

Mechanical disruption (e.g., milling, cutting, chipping) of cured asphalt pavement may release crystalline silica dust from the aggregate which: Causes damage to organs: Lungs (silicosis) and May cause cancer: Lungs

Additional Information

Avoid breathing dust/fume/gas/mist/vapors/spray.

As necessary, Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands and exposed skin after use.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	% wt.	CAS No.
Aggregate (crushed stone, sand, gravel, slag)	70 - 97	Various
Petroleum asphalt / bitumen [^]	3 - 7	8052-42-4
Polymers and Natural Rubbers	< 0.5	Various

[^]Contains: <0.05% of 3 - 7 ring Polycyclic Aromatic Hydrocarbons (PAHs).



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Other Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below. Please see Section 8 of SDS for more details.

- Contains: <0.1% airborne crystalline silica (inherent in aggregate) and <0.1% hydrogen sulfide.
- Heated product releases asphalt fume.

Additional Information - None

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Not normally required. Move person to fresh air. Apply artificial respiration if necessary. If symptoms persist, obtain medical attention.
Skin Contact	Gently wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
Eye Contact	Flush eyes with water for at least 15 minutes while holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
Ingestion	Not normally required. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.
Most important symptoms and effects, both acute and delayed	None known
Indication of any immediate medical attention and special treatment needed	None known

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	None anticipated.

Special hazards arising from the substance or mixture

Combustion causes toxic fumes. Combustion products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides

Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Not normally required.
Environmental precautions	Not normally required.
Methods and material for containment and cleaning up	Not normally required.
Reference to other sections	None
Additional Information	None.



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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Mechanical disruption (e.g., milling, cutting, chipping) of cured asphalt pavement may release crystalline silica dust from the aggregate.

Conditions for safe storage, including any incompatibilities

- Storage temperature
- Incompatible materials

Ambient temperatures.
Strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits: Applicable only to heated product or milling, cutting, chipping of the product.

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA) *	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Asphalt fume	-----	-----	0.5 mg/m ³ ⁽¹⁾	-----	-----	See below
Crystalline Silica (respirable particulate)	-----	$\frac{10 \text{ mg/m}^3}{\% \text{SiO}_2 + 2}$	0.025 mg/m ³ ^	-----	-----	See below

⁽¹⁾ Inhalable benzene-soluble fraction; ^Suspected Human Carcinogen; *Refer to OSHA 29 CFR 1910.1000 & 29 CFR 1926.55; 8hr TWA = 8 hour time-weighted average; STEL = Short Term Exposure Limit.

Recommended monitoring method

NIOSH 5042 (Asphalt Fume), NIOSH 7500 (Crystalline Silica)

Exposure controls

Appropriate engineering controls

Use only outdoors or in a well-ventilated area.

Personal protection equipment

Eye/face protection



The following to be used as necessary: Safety Glasses

Skin protection (Hand protection/ Other)



The following to be used as necessary: Leather or thick textile gloves.

Respiratory protection



In case of heating the product or milling, cutting, chipping of the product, respiratory protection may be needed if occupational exposure limits are exceeded. Air-purifying respirator with combination organic vapor cartridge / particulate filter may be sufficient. Check with protective equipment manufacturer's data.

Thermal hazards

Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

Not normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance
Color.

Solid
Dark brown / Black



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Odor	Asphalt / Bitumen
Odor Threshold (ppm)	Not available.
pH (Value)	Not available.
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	> 371 (>700 °F)
Flash Point (°C)	> 232 (> 450 °F)
Evaporation Rate	Not available.
Flammability (solid, gas)	Not applicable.
Explosive Limit Ranges	Not applicable.
Vapor pressure (Pascal)	Not determined.
Vapor Density (Air=1)	Not determined.
Density (g/ml)	2.2 - 2.7
Solubility (Water)	Negligible
Solubility (Other)	Not known
Partition Coefficient (n-Octanol/water)	Not available.
Auto Ignition Point (°C)	Not available.
Decomposition Temperature (°C)	Not available.
Kinematic Viscosity (cSt) @ 40°C	Not available
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Other information	Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	May react violently with: Strong oxidizing agents
Conditions to avoid	Incompatible materials
Incompatible materials	Oxidizers
Hazardous decomposition product(s)	Combustion causes toxic fumes. Combustion products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin Contact, Eye Contact

Information on toxicological effects

Reclaimed Asphalt Pavement:

Acute toxicity	LD50 (rat): >5000 mg/kg bw LD50 (dermal): >2000 mg/kg bw LC50 (inhalation, fume): >94.4 mg/m ³
Irritation/Corrosivity	May cause irritation to skin, eyes and respiratory system.
Sensitization	Not to be expected
Repeated dose toxicity	NOAEL(rat): 28 mg/m ³ LOAEL (rat): 149 mg/m ³
Carcinogenicity	Not to be expected at typical road paving temperatures.

NTP	IARC	ACGIH	OSHA
No.	Yes.*	No.	No.

Mutagenicity	Not to be expected.
Reproductive toxicity	Not to be expected.



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Other information * IARC (2013, volume 103) identifies that "occupational exposures to straight-run bitumens and their emissions during road paving are possibly carcinogenic to humans (Group 2B)." However, classification as a carcinogen under OSHA 29 CFR 1910.1200 is not warranted given the absence of positive cancer findings in human epidemiological studies and in cancer studies with laboratory animals when exposed dermally or by inhalation to asphalt products or fume condensates that are typical of road paving applications. IARC (2013, volume 103) also identifies that "occupational exposures to oxidized bitumens and their emissions during roofing are probably carcinogenic to humans (Group 2A)." Roofing shingles, which are considered an article under OSHA 29 CFR 1910.1200, are sometimes recycled into road paving asphalt mix. Emissions from oxidized bitumen, e.g., from shingles, at road paving temperatures are not expected to be qualitatively different than emissions from straight-run bitumens, and therefore would not warrant a carcinogen classification under OSHA 29 CFR 1910.1200.

Crystalline Silica (quartz and cristobalite)

Acute toxicity	LD50 (rat): >5000 mg/kg bw LD50 (dermal): >2000 mg/kg bw LC50 (inhalation, fume): >94.4 mg/m ³ - Causes damage to organs: Lungs (silicosis)											
Irritation/Corrosivity	Not to be expected											
Sensitization	Not to be expected											
Repeated dose toxicity	Causes damage to organs through prolonged or repeated exposure: Lungs (silicosis)											
Carcinogenicity	May cause cancer. Lungs											
<table><tr><th>NTP</th><th>IARC</th><th>ACGIH</th><th>OSHA</th></tr><tr><td>No.</td><td>Yes.</td><td>A2</td><td>Yes.</td></tr></table>					NTP	IARC	ACGIH	OSHA	No.	Yes.	A2	Yes.
NTP	IARC	ACGIH	OSHA									
No.	Yes.	A2	Yes.									
Mutagenicity	Not to be expected.											
Reproductive toxicity	Not to be expected.											

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Short term	LL50 (48 hour): >1000 mg/l (Fish) LL50 (48 hour): >1000 mg/L (Aquatic Invertebrates) EL50 (48 hour): >1000 mg/L (Aquatic Plants)
Long Term	No data
Persistence and degradability	The product is poorly biodegradable.
Bioaccumulative potential	The product has low potential for bioaccumulation.
Mobility in soil	The product has low mobility in soil.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
Additional Information	None known.

SECTION 14: TRANSPORT INFORMATION

Ground or Water Domestic Voyage (DOT):	Not regulated when transported below 240°C (464 °F).
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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

RCRA Hazardous Waste Number (40 CFR 261.33): None

US RCRA Hazard Class: Not applicable.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	-----	-----	-----

SARA 311/312 - Hazard Categories: None

☐ Fire ☐ Sudden Release ☐ Reactivity ☐ Immediate (acute) ☐ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	-----	-----

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	-----	-----	-----

SECTION 16: OTHER INFORMATION

Additional Information

The following sections contain revisions or new statements: 1-16.

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