

1. Identification

Product identifier	Axys
Other means of identification	Not available.
Recommended use	Not available.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Manufacturer:	Ergon Asphalt & Emulsions, Inc.
Address:	2829 Lakeland Drive Jackson, MS 39232
Website:	www.ergonasphalt.com
Telephone:	1-800-222-7122 (Customer Service)
E-mail:	sds@ergon.com
24 hour Emergency (CHEMTREC):	North America 1-800-424-9300; International 1-703-527-3887

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.

*Hazards not stated here are "Not classified", "Not applicable" or "Classification not possible".

Label elements

Hazard symbol	None.
Signal word	Not available.
Hazard statement	Not available.
Prevention	Not available.
Response	If exposed or concerned: Get medical advice/attention.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Molten asphalt presents a thermal hazard.
Supplemental information	Vapors containing hydrogen sulfide may accumulate during storage or transport. HYDROGEN SULFIDE (H ₂ S) can be harmful or fatal if inhaled.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ASPHALT		8052-42-4	20 - 30
Amorphous Silica		61790-53-2	5 - 10
Alumina Silicate		1302-93-8	1 - 5
Silica		112945-52-5	1 - 5

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Immediately place the affected skin under running water for at least 20 minutes - DO NOT DELAY. Prolonged flushing/cooling is necessary. Ice (or "cold packs") may be used in the event that water is unavailable. Do not attempt to remove the asphalt. Do not place any sheets or towels on top of the asphalt due to the risk of adhesion. Get immediate medical 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 or advice.

Ingestion Rinse mouth. DO NOT induce vomiting. Get medical attention immediately. If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms/effects, acute and delayed Potential for severe thermal burns.

5. Fire-fighting measures

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical Irritating and toxic gases or fumes may be released during a fire.

Special protective equipment and precautions for firefighters Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

Fire-fighting equipment/instructions ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. Use of foam or water may cause frothing.

Specific methods In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and materials for containment and cleaning up Dike far ahead of spill for later disposal. Ventilate area and avoid breathing vapors or mist. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways. Allow spilled material to solidify and scrape up with shovels into a suitable container for recycle or disposal.

7. Handling and storage

Precautions for safe handling Avoid contact with molten material. Hydrogen sulfide, a very highly toxic gas, may be present with this material. Keep face clear of tank and/or tank car openings. Do not add water to hot product. This may result in frothing of the mixture causing hot asphalt to overflow the container.

Conditions for safe storage, including any incompatibilities Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. It is recommended that the storage temperature never exceed 350°F.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
HYDROGEN SULFIDE (CAS 7783-06-4)	Ceiling	20 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Amorphous Silica (CAS 61790-53-2)	TWA	0.8 mg/m ³
Silica (CAS 112945-52-5)	TWA	20 mppcf
		0.8 mg/m ³
		20 mppcf

US. ACGIH Threshold Limit Values

Material	Type	Value	Form
Axys (CAS Mixture)	TWA	0.5 mg/m ³	Inhalable fraction.
Components	Type	Value	Form
Alumina Silicate (CAS 1302-93-8)	TWA	1 mg/m ³	Respirable fraction.
ASPHALT (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fraction.
HYDROGEN SULFIDE (CAS 7783-06-4)	STEL	5 ppm	
	TWA	1 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value	Form
Axys (CAS Mixture)	Ceiling	5 mg/m ³	Fume.
Components	Type	Value	Form
Amorphous Silica (CAS 61790-53-2)	TWA	6 mg/m ³	
ASPHALT (CAS 8052-42-4)	Ceiling	5 mg/m ³	Fume.
HYDROGEN SULFIDE (CAS 7783-06-4)	Ceiling	15 mg/m ³	
		10 ppm	
Silica (CAS 112945-52-5)	TWA	6 mg/m ³	

Biological limit values

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

Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

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

Safety glasses. Wear face shield if there is risk of splashes.

Hand protection

Thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Other

Normal work clothing (long sleeved shirts and long pants) is recommended. Wear 100% cotton clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards

During product use, there is a risk of thermal burns.

General hygiene considerations

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.

9. Physical and chemical properties**Appearance**

Brown to black in color.

Physical state

Liquid.

Form

Semi-solid at ambient temperature

Color

Black.

Odor

Tar-like

Odor threshold

Not available.

pH

3 - 9

Melting point/freezing point

Not available.

Initial boiling point and boiling range

> 212 °F (> 100 °C)

Flash point

> 199.9 °F (> 93.3 °C) Pensky-Martens Closed Cup

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)** Not available. estimated**Flammability limit - upper (%)** Not available. estimated**Explosive limit - lower (%)** Not available.**Explosive limit - upper (%)** Not available.**Vapor pressure**

Not available.

Vapor density

Not available.

Relative density

> 1

Solubility(ies)**Solubility (water)** Insoluble**Partition coefficient (n-octanol/water)**

Not available.

Auto-ignition temperature

> 700 °F (> 371.11 °C)

Decomposition temperature Not available.

Viscosity Not available.

10. Stability and reactivity

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

Chemical stability Stable under normal temperature conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid Do not overheat product.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Upon decomposition, this product may yield sulfur dioxide, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen sulfide.

11. Toxicological information

Information on likely routes of exposure

Ingestion Causes digestive tract burns.

Inhalation May cause irritation to the respiratory system.

Skin contact Molten material will produce thermal burns.

Eye contact Molten material will produce thermal burns.

Symptoms related to the physical, chemical and toxicological characteristics Not available.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
Axys (CAS Mixture)		
Acute		
<i>Inhalation</i>		
LC50	Monkey	70 mg/l, 35 Minutes estimated
	Mouse	150 mg/l, 18 Minutes estimated
		38 mg/l, 410 Minutes estimated
		9.6 mg/l, 804 Minutes estimated
		2.4001 mg/l, 960 Minutes estimated
	Rat	150 mg/l, 14 Minutes estimated
		38.0001 mg/l, 960 Minutes estimated
Components		
Species		
Test Results		
Amorphous Silica (CAS 61790-53-2)		
Acute		
<i>Oral</i>		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg
Silica (CAS 112945-52-5)		
Acute		
<i>Oral</i>		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg

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

Skin corrosion/irritation Not available.

Serious eye damage/eye irritation Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization Not available.

Germ cell mutagenicity Not available.

Carcinogenicity

IARC: occupational exposures to straight-run bitumens and their emissions during road paving are "possibly carcinogenic to humans" (Group 2B). This product contains crystalline silica. Silica is a known carcinogen; however in this encapsulated form the normal routes of exposure are unavailable.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous Silica (CAS 61790-53-2)	3 Not classifiable as to carcinogenicity to humans.
ASPHALT (CAS 8052-42-4)	2B Possibly carcinogenic to humans.
Silica (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity This product has no known eco-toxicological effects.

Product	Species	Test Results
Axys (CAS Mixture)		
Fish	LC50	5.8589 mg/l, 96 hours estimated
Components	Species	Test Results
HYDROGEN SULFIDE (CAS 7783-06-4)		
Aquatic		
Fish	LC50	0.009 mg/l, 96 hours

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

Persistence and degradability Not available.

Bioaccumulative potential Not available.

Mobility in soil Not available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Allow molten resin to solidify before disposal. Dispose in accordance with all applicable regulations. When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

Hazardous waste code Not applicable.

Waste from residues / unused products 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 No special precautions.

14. Transport information**DOT**

Not regulated as dangerous goods.

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 available.

15. Regulatory information**US federal regulations**

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

ASPHALT (CAS 8052-42-4) Listed.
 HYDROGEN SULFIDE (CAS 7783-06-4) Listed.

US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity

HYDROGEN SULFIDE (CAS 7783-06-4) 100 LBS

US. 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 - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
HYDROGEN SULFIDE	7783-06-4	100	500 lbs		

SARA 311/312
 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
HYDROGEN SULFIDE	7783-06-4	1 - < 3

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)

HYDROGEN SULFIDE (CAS 7783-06-4)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List

Amorphous Silica (CAS 61790-53-2)
 ASPHALT (CAS 8052-42-4)
 HYDROGEN SULFIDE (CAS 7783-06-4)
 Silica (CAS 112945-52-5)

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

HYDROGEN SULFIDE (CAS 7783-06-4) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

Amorphous Silica (CAS 61790-53-2)
 ASPHALT (CAS 8052-42-4)
 HYDROGEN SULFIDE (CAS 7783-06-4)
 Silica (CAS 112945-52-5)

US. Rhode Island RTK

HYDROGEN SULFIDE (CAS 7783-06-4)

US. California Proposition 65**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

ASPHALT (CAS 8052-42-4) Listed: January 1, 1990

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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 08-31-2016

Version # 01

Further information HMIS® is a registered trade and service mark of the NPCA.

NFPA ratings
 Health: 1
 Flammability: 1
 Instability: 0

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