



SAFETY DATA SHEET

1. Identification

Product Identifier Saint John Polymer Modified Asphalt with Zycotherm SP

Other means of identification

Synonyms PG 58H-28, PG 64H-28, PG 58V-28, PG 64V-28, PG 58E-28, PG 64E-28

Recommended use Asphalt

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Irving Oil Refining G.P.

Address Box 1260
Saint John, NB E2L 4H6
Canada

Telephone (506) 202-2000
Refinery: (506) 202-3000

E-mail Not available.

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

Supplier See above.

2. Hazard identification

Physical hazards Not classified.

Health hazards Carcinogenicity Category 2

Environmental hazards Not classified

Label elements



Signal word Warning

Hazard statement Suspected of causing cancer.

Precautionary statement

Prevention Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection and face protection.

Response IF exposed or concerned: Get medical attention.

Storage Store locked up.

Disposal Dispose of container in accordance with local, regional, national and international regulations.

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Asphalt		8052-42-4	80 - 100
Sulphur		7704-34-9	1 - 5
Hydrogen sulphide		7783-06-4	< 0.1

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments *Asphalt is a complex mixture of high molecular weight hydrocarbons. Its exact composition depends on the source of the crude oil from which it was produced and the refining methods used. This product may contain small amounts of Hydrogen sulphide which may accumulate in confined spaces.

4. First-aid measures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. For breathing difficulties, oxygen may be necessary.
Skin contact	In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily. Cover wound with sterile dressing.
Eye contact	If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately. Remove contact lenses, if applicable, and continue flushing. Get medical attention immediately.
Ingestion	Rinse mouth. Do not induce vomiting. Obtain medical attention.
Most important symptoms/effects, acute and delayed	Direct contact can product thermal burns. Inhalation of vapour can cause respiratory tract irritation or chemical burns. Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea. In high concentrations, hydrogen sulphide may produce pulmonary edema and respiratory depression or paralysis. Dusts may irritate the respiratory tract, skin and eyes.
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

5. Fire-fighting measures

Suitable extinguishing media	Carbon dioxide. Dry chemical. Water spray. Foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors will ignite and burn at temperatures exceeding the flash point.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Polycyclic aromatic hydrocarbons (PAHs). Hydrogen sulphide.
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. In the event of fire, wear self-contained breathing apparatus.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.
General fire hazards	If product is heated above its flash point it will release flammable vapors which can burn in the open or be explosive in confined spaces if exposed to ignition source.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Leave the molten product to cool down. Remove solidified product mechanically. Following product recovery, flush area with water. Prevent entry into waterways, sewers, basements or confined areas.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and storage

Precautions for safe handling	Avoid contact with hot material. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required. Avoid prolonged exposure. Use only with adequate ventilation. Observe good industrial hygiene practices. Wash thoroughly after handling. When handling, do not eat, drink or smoke.
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**Conditions for safe storage,
including any incompatibilities**

Store locked up.
Keep away from heat, sparks and open flame.
Store in a well-ventilated place.
Store away from incompatible materials (see Section 10 of the SDS).
Keep out of reach of children.

8. Exposure controls/Personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fume.
Hydrogen sulphide (CAS 7783-06-4)	STEL	5 ppm	
	TWA	1 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m ³	Fume.
Hydrogen sulphide (CAS 7783-06-4)	Ceiling	21 mg/m ³	
		15 ppm	
	TWA	14 mg/m ³	
		10 ppm	
Sulphur (CAS 7704-34-9)	TWA	10 mg/m ³	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0.5 mg/m ³	Aerosol, inhalable.
Hydrogen sulphide (CAS 7783-06-4)	Ceiling	10 ppm	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fume
Hydrogen sulphide (CAS 7783-06-4)	STEL	5 ppm	
	TWA	1 ppm	

Canada - New Brunswick

Components	Type	Value	Form
Hydrogen sulphide (CAS 7783-06-4)	STEL	21 mg/m ³	
		15 ppm	
	TWA	14 mg/m ³	
		10 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0.5 mg/m ³	Inhalable fraction.
Hydrogen sulphide (CAS 7783-06-4)	STEL	15 ppm	
	TWA	10 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m ³	Fume.
Hydrogen sulphide (CAS 7783-06-4)	STEL	21 mg/m ³	
		15 ppm	
	TWA	14 mg/m ³	
		10 ppm	

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	15 minute	1.5 mg/m3	Inhalable fraction.
	8 hour	0.5 mg/m3	Inhalable fraction.
Hydrogen sulphide (CAS 7783-06-4)	15 minute	15 ppm	
	8 hour	10 ppm	
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.		
Appropriate engineering controls	Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Face shield or chemical goggles.		
Skin protection			
Hand protection	Heat-protective gloves. Confirm with a reputable supplier first.		
Other	For molten product, use any type rubber thermal insulating gloves and other clothing as necessary to protect from thermal burns. If clothing or footwear becomes contaminated with the product, remove it immediately and completely decontaminate it before re-use, or discard it.		
Respiratory protection	Do not attempt rescue of an hydrogen sulfide knockdown victim without the use of proper respiratory protective equipment. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).		
Thermal hazards	Not available.		
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.		

9. Physical and chemical properties

Appearance	Solid at room temperature. Viscous liquid above 194°F (90°C).
Physical state	Liquid.
Form	Solid at room temperature. Viscous liquid above 194°F (90°C).
Colour	Black
Odour	Note: H2S deadens the sense of smell. Absence of rotten eggs smell does not mean absence of H2S. Rotten egg.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Flammable solid.
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.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Do not mix with other chemicals. Heat, open flames, static discharge, sparks and other ignition sources.
Incompatible materials	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of nitrogen. Oxides of carbon. Polycyclic aromatic hydrocarbons (PAHs). Hydrogen sulphide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Inhalation of vapours/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or difficulty breathing. Sense of smell may be impaired at concentrations of hydrogen sulphide at approximately 20 ppm, with headache and respiratory tract lung irritation. At 250 to 500ppm, potentially fatal pulmonary edema may occur. Dizziness, sudden (often fatal) collapse, unconsciousness and death occur at higher concentrations. Pulmonary edema may be delayed as long as 48 hours after exposure.
Skin contact	Second and third degree burns from contact with hot asphalt.
Eye contact	Fumes released during thermal processing may cause eye irritation.
Ingestion	Not a normal route of exposure. Contact with molten material may cause thermal burns. May cause stomach distress, nausea or vomiting.

Symptoms related to the physical, chemical and toxicological characteristics Contact with molten material may cause thermal burns.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Asphalt (CAS 8052-42-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Rat	> 94.4 mg/m ³ , 4.5 Hours, ECHA
<i>Oral</i>		
LD50		> 5000 mg/kg, ECHA
Hydrogen sulphide (CAS 7783-06-4)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Mouse	634 ppm, 1 Hours, ECHA
	Rat	> 0.4 mg/L, 960 Minutes, HSDB 712 ppm, 1 Hours, HSDB/ECHA 356 ppm, 4 Hours, ECHA
<i>Oral</i>		
LD50	Not available	

Components	Species	Test Results
Sulphur (CAS 7704-34-9)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Rat	> 9.2 mg/l/4h, Spectrum Chemical > 5.4 g/m ³ , 4 Hours, ECHA > 5.4 mg/L, 4 Hours, ECHA
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, Sigma > 2200 mg/kg, ECHA
Skin corrosion/irritation	Thermal burn hazard - contact with hot material may cause thermal burns.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Fumes released during thermal processing may cause eye irritation.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitisation		
Canada - Alberta OELs: Irritant		
Asphalt (CAS 8052-42-4)		Irritant
Respiratory sensitisation	Not available.	
Skin sensitisation	This product is not expected to cause skin sensitisation	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	Suspected of causing cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Asphalt (CAS 8052-42-4)		Volume 103 - 2B Possibly carcinogenic to humans.
Reproductive toxicity	Not classified.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not available.	
Chronic effects	Prolonged inhalation may be harmful. Chronic exposure to vanadium may damage the kidneys. Repeated high exposure to vanadium may cause anemia. Acne-like lesions. Pigmentation of skin.	
Further information	Not available.	

12. Ecological information

Ecotoxicity	See below		
Ecotoxicological data			
Components	Species		Test Results
Hydrogen sulphide (CAS 7783-06-4)			
Aquatic			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	0.009 mg/L, 96 hours
Sulphur (CAS 7704-34-9)			
Aquatic			
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>)	> 10000 mg/L, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		

Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	Not 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	Allow product to cool and solidify. 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	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

General	<p>Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.</p> <p>As per TDG Part 2, Section 2.43: A substance is included in Class 9, Miscellaneous Products, Substances or Organisms, if it:</p> <p>(b) is not included in Class 9 in column 3 of Schedule 1 and does not meet the criteria for inclusion in any of Classes 1 to 8 and (iii) except for asphalt or tar, is offered for transport or transported at a temperature greater than or equal to 100°C if it is in a liquid state or at a temperature greater than or equal to 240°C if it is in a solid state.</p>
Transportation of Dangerous Goods (TDG - Canada)	Not regulated as dangerous goods.

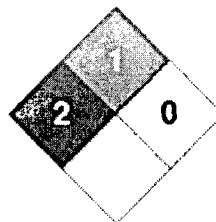
15. Regulatory information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (SOR/2015-17) and the SDS contains all the information required by the HPR.	
Export Control List (CEPA 1999, Schedule 3)	Not listed.	
Greenhouse Gases	Not listed.	
Precursor Control Regulations	Not regulated.	
WHMIS status	Hazardous	
International regulations	Hazardous	
Inventory status		
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)		

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	* 2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Issue date	04-March-2021
Revision date	04-March-2021
Version No.	01

Other information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (SOR/2015-17) and the SDS contains all the information required by the HPR. For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Disclaimer

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