

Material Safety Data Sheet



Date of issue 13 February 2014
Version 15

1. Product and company identification

Product name : SPECTRATHIN MEDIUM REDUCER
Code : TFS309-60
Supplier : PPG Industries, Inc.
TrueFinishes
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)
Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

2. Hazards identification

Emergency overview

: DANGER!
FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT AND EYE IRRITATION. MAY BE HARMFUL IF INHALED OR SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat.
Ingestion : May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Skin : Moderately irritating to the skin.
Eyes : Irritating to eyes.

Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).
See toxicological information (Section 11)

Product code TFS309-60 Date of issue 13 February 2014 Version 15
Product name SPECTRATHIN MEDIUM REDUCER

3. Composition/information on ingredients

Name	CAS number	%
Fluorane	78-93-3	15 - 40
Toluene	108-88-3	10 - 30
Ligroine	8032-32-4	10 - 30
Solvent naphtha (petroleum), light aromatic	64742-95-6	10 - 30
1,2,4-trimethylbenzene	95-53-6	3 - 7
Solvent naphtha (petroleum), light aliph.	64742-89-8	1 - 5
heptane	142-82-5	1 - 5
methylcyclohexane	108-87-2	1 - 5
xylene	1330-20-7	0.1 - 1
cumene	98-82-8	0.1 - 1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately, have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Skin contact

: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Inhalation

: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Ingestion

: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Notes to physician

: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product

: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable

: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable

: Do not use water jet.

Special exposure hazards

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous combustion products

: Decomposition products may include the following materials:
carbon oxides

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions

- No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No fires, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respiratory equipment when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill

- Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13).

Small spill

- Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.
- Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling

- Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not swallow. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respiratory equipment when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

- Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Name	Result	ACGIH	OSHA	Ontario	Mexico	PPG
Butanone	TWA	200 ppm	200 ppm	200 ppm	200 ppm	Not established
	STEL	300 ppm	Not established	300 ppm	300 ppm	Not established
Toluene	TWA	20 ppm	200 ppm Z	20 ppm	50 ppm S	Not established
	STEL	Not established	500 ppm Z A 300 ppm Z C	Not established	Not established	Not established

8. Exposure controls/personal protection

Lignone	TWA	Not established	Not established	Not established	Not established	Not established
STEL	Not established	Not established	Not established	Not established	Not established	Not established
1,2,4-trimethylbenzene	TWA	25 ppm	Not established	25 ppm	25 ppm	Not established
STEL	Not established	Not established	Not established	Not established	Not established	Not established
nepene	TWA	400 ppm	500 ppm	400 ppm	400 ppm S	Not established
STEL	500 ppm	Not established	500 ppm	500 ppm S	Not established	Not established
methylcyclohexane	TWA	400 ppm	500 ppm	400 ppm	400 ppm	Not established
STEL	Not established	Not established	Not established	Not established	Not established	Not established
xylylene	TWA	100 ppm	100 ppm	100 ppm	100 ppm	Not established
STEL	150 ppm	Not established	150 ppm	150 ppm	150 ppm	Not established
cumene	TWA	50 ppm	50 ppm S	50 ppm S	50 ppm S	Not established
STEL	Not established	Not established	Not established	Not established	Not established	Not established

Key to abbreviations

- A = Acceptable Maximum Peak
 ACGIH = American Conference of Governmental Industrial Hygienists.
 C = Ceiling Limit
 F = Fume
 IPEL = Internal Permissible Exposure Limit
 IPEL = Internal Permissible Exposure Limit
 OSHA = Occupational Safety and Health Administration.
 R = Respirable
 Z = OSHA-ZOCCR 1910.1200 Subpart Z - Toxic and Hazardous Substances
- S = Potential skin absorption
 SR = Skin sensitization
 ST = Skin irritation
 STS = Skin sensitization
 TD = Threshold Limit Value
 TLV = Time Weighted Average

Consult local authorities for acceptable exposure limits.

- Recommended monitoring : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Procedures

Engineering measures

- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Eyes : Safety glasses with side shields.

8. Exposure controls/personal protection

- Hands**
- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
 - : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
 - : Personal protective equipment for the body should be approved by a specialist before handling this product.
 - : When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
 - : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, turn scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Respiratory**
- Skin**
- Environmental exposure controls**

9. Physical and chemical properties

- Physical state**
- : Liquid.
- Flash point**
- : Open cup: -4.44°C (24°F)
 - : Lower: 1.5%
- Explosion limits**
- : Not available.
- Color**
- : Not available.
- Odor**
- : Not available.
- pH**
- : Not available.
- Boiling/condensation point**
- : >37.78°C (>100°F)
- Melting/freezing point**
- : Not available.
- Specific gravity**
- : 0.82
- Density (lbs / gal)**
- : 6.64
- Vapor pressure**
- : 5.3 kPa (40 mm Hg) [room temperature]
- Vapor density**
- : Not available.
- Volatility**
- : 100% (v/v), 100% (w/w)
- Evaporation rate**
- : 3.48 (butyl acetate = 1)
 - : Not available.
- Partition coefficient: n-octanol/water % Solid, (w/w)**
- : 0

10. Stability and reactivity

- Stability**
- : Stable under recommended storage and handling conditions (see Section 7).
 - : Avoid all possible sources of ignition (spark or flame). Do not pressure, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
 - : Reactive or incompatible with the following materials: oxidizing materials, strong acids, strong alkalis
- Materials to avoid**
- : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous decomposition products**
- : Under normal conditions of storage and use, hazardous polymerization will not occur.
- Hazardous polymerization**

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Flutranone	LD50 Oral LD50 Dermal LC50 Inhalation	Rat Rabbit Rat	2737 mg/kg 6480 mg/kg 11243 ppm	- 4 hours -
toluene	Vapor LD50 Oral LD50 Dermal LC50 Inhalation	Rat Rabbit Rat	636 mg/kg 8.39 g/kg 49 g/m3	- 4 hours 4 hours
Lignone	LC50 Inhalation	Rat	3400 ppm	4 hours
Solvent naphtha (petroleum), light aromatic	LD50 Oral LD50 Dermal	Rat Rabbit	8400 mg/kg 3.48 g/kg	- -
1,2,4-trimethylbenzene	LD50 Oral LC50 Inhalation	Rat Rat	5 g/kg 18000 mg/m3	4 hours 4 hours
heptane	LC50 Inhalation	Rat	103 g/m3	4 hours
methylcyclohexane	LD50 Oral	Rat	4 g/kg	-
xylene	LD50 Oral LD50 Dermal LC50 Inhalation	Rat Rabbit Rat	4.3 g/kg >1.7 g/kg 5000 ppm	- 4 hours -
cumene	Vapor LD50 Oral LD50 Dermal LC50 Inhalation	Rat Rabbit Rat	1.4 g/kg 12.3 g/kg 39000 mg/m3	4 hours -

Conclusion/Summary

- : Not available.

Chronic toxicity

Conclusion/Summary

- : Not available.

Defining Irritant

Target organs

- : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
- : Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, heart, peripheral nervous system, upper respiratory tract, skin, eye, lens or cornea.

Carcinogenicity

Carcinogenicity

- : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

Classification

Product/ingredient name	ACGIH	IARC	NTP	OSHA
Flutranone	A4	3	-	-
Cumene	-	2B	-	-

Carcinogen Classification code:

ACGIH: A1, A2, A3, A4, A5
IARC: 1, 2A, 2B, 3, 4
NTP: Proven, Possible
OSHA: +
Not listed or regulated as a carcinogen: -

Teratogenicity

- : Contains material which may cause developmental abnormalities, based on animal data.
- : Contains material which may impair female fertility, based on animal data.

Fertility effects

12. Ecological information

Environmental effects : No known significant effects or critical hazards.
 Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Endrinone	Acute LC50 3220000 to 3320000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Acute LC50 >400 ppm Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Acute LC50 >520000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Chronic NOEC 400 ppm Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Chronic NOEC <70000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 5800 ug/L Fresh water	Fish - Rainbow trout, danielson trout - Oncorhynchus mykiss	96 hours
	Acute EC50 6000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Chronic NOEC 28000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
1,2,4-trimethylbenzene	Acute LC50 7720 to 8280 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
Xylene	Acute LC50 3300 to 4093 ug/L Fresh water	Fish - Rainbow trout, danielson trout - Oncorhynchus mykiss	96 hours
Cumene	Acute LC50 2700 ug/L Fresh water	Fish - Rainbow trout, danielson trout - Oncorhynchus mykiss	96 hours
	Acute EC50 10600 to 14100 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

13. Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION for additional handling information and protection of employees, Section 6: Accidental release measures

14. Transport information

UN number	DOT	TDG	Mexico	IMDG
UN 1253	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard classes	3			
Packing group	II	II	II	II
Environmental hazards	No.	Yes.	No.	Yes.
Marine pollutant substances	Not applicable.	Solvent naphtha (petroleum), light aromatic, 1,2, 4-trimethylbenzene	Not applicable.	Solvent naphtha (petroleum), light aromatic, 1,2, 4-trimethylbenzene
Product RQ (lbs)	RD1.1	Not applicable.	Not applicable.	Not applicable.
RQ substances	RQ1, 1 (Toluene, butanone)	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
 TDG : The marine pollutant mark is not required when transported by road or rail.
 Mexico : None identified.
 IMDG : The marine pollutant mark is not required when transported in sizes of 45 L or 45 kg.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. Regulatory information

United States inventory (TSCA 8b) : All components are listed or exempted.
 Australia inventory (AICS) : All components are listed or exempted.
 Canada inventory (DSL) : All components are listed or exempted.
 China inventory (IECSC) : All components are listed or exempted.
 Europe inventory (REACH) : Please contact your supplier for information on the inventory status of this material.
 Japan inventory (ENCS) : All components are listed or exempted.
 Korea inventory (KECI) : All components are listed or exempted.
 New Zealand (NZIOC) : Substance Use Restricted
 Philippines inventory (PICCS) : All components are listed or exempted.
 United States :
 U.S. Federal regulations :
 SARA 302/304: No products were found.
 CERCLA: Hazardous substances: cumene: 5000 lbs. (2270 kg); xylene: 100 lbs. (45.4 kg); toluene: 1000 lbs. (454 kg); butanone: 5000 lbs. (2270 kg).

15. Regulatory information

SARA 311/312 SDS Distribution - Chemical Inventory - Hazard Identification:

Chemical name	CAS #	Acute	Chronic	Fire	Reactive	Pressure
Butanone	78-93-3	Y	N	Y	N	N
toluene	108-88-3	Y	Y	Y	N	N
Ligroine	8032-32-4	Y	N	Y	N	N
Solvent naphtha (petroleum), light aromatic	64742-95-6	Y	N	Y	N	N
1,2,4-trimethylbenzene	95-53-6	Y	N	Y	N	N
Solvent naphtha (petroleum), light aliph.	64742-89-8	Y	N	N	N	N
methylcyclohexane	108-87-2	Y	N	Y	N	N
heptane	142-82-5	Y	N	Y	N	N
cumene	98-82-8	Y	Y	Y	N	N
Product as-supplied :		Y	Y	Y	N	N
SARA 313 Supplier notification	Chemical name : 1,2,4-trimethylbenzene CAS number : 95-53-6 Concentration : 10 - 30					

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Canada

WHMIS (Canada)

: Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

Mexico

Classification

Flammability : 3 Health : 2 Reactivity : 0

16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 3 Physical hazards : 0
(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 3 Instability : 0

Date of previous issue : 8/23/2013.

Organization that prepared : EHS

the MSDS

* Indicates information that has changed from previously issued version.

Disclaimer

16. Other information

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.