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1. Identification

1.1. Product identifier

Product Identity "GTS" - GRM's Dry Film Industrial Thread Spray

Alternate Names "GTS" - Dry Film Coating"

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

Intended useSee Technical Data Sheet.Application MethodSee Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name GRM Flow Products,

#310, 8810 - 15th Street,

Edmonton, AB, T6P 0B9

Customer Service Phone #: +1 (519) 252-7275

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 2;H225 Highly Flammable liquid and vapor.

Skin irrit. 2; H315 Causes Skin irritation.

Eye Irrit. 2;H319 Causes serious eye irritation.

Skin Sens. 1;H317 May cause an allergic skin reaction.

Acute tox. inhalation, 4; H332 Harmful if inhaled.

STOT SE 3; H335 May cause respiratory irritation.
Carc. 2;H351 Suspected of causing cancer.

STOT RE 1;H372 Causes damage to organs through prolonged or repeated exposure.

Asp. haz. 1; H304 May be fatal if swallowed and enters airways. Aquatic Chronic 3;H412 Harmful to aquatic life with long lasting effects.

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2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.







Danger

- H225 Highly flammable liquid and vapor.
- H315 Causes skin irritation
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.
- H412 Harmful to aquatic life with long lasting effects.

[Prevention]:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat / sparks / open flames / hot surfaces No smoking.
- P233 Keep Container Tightly Closed.
- P235 Keep cool.
- P240 Ground / bond container and receiving equipment.
- P241 Use explosion-proof electrical / ventilating / light / equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe dust / fume / gas / mist / vapors / spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well ventilated area.
- P272 Contaminated clothing should not be allowed out of the workplace.

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P273 Avoid Release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P303+P361+P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+ P312 IF INHALED: Call a poison center/doctor if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice / attention.

P312 Call a Poison center/doctor if you feel unwell.

P321 Specific treatment (see information on this label).

P331 Do NOT induce vomiting.

P333+P313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+P313 If eye irritation persists: Get medical advice / attention.

P363 Wash contaminated clothing before reuse.

P370+P378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]

P403+P233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations		Weight %	GHS Classification	Notes	
Alkyd Resin CAS Number: Pro	prietary	50-60	Not Classified		
VM & P Naphtha CAS Number: 0008	8032-32-4	35-40	Flam. Liq. 2; H225 Skin irrit. 2; H315 Eye irrit. 2A; H319 STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1;H304	[1][2]	
Xylene CAS Number: 000	1330-20-7	20-30	Flam. Liq. 3;H226 Acute Tox. 4;H332	[1][2]	

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		Acute Tox. 4;H312 Skin Irrit. 2;H315	
Ethyl Benzene(HAP) CAS Number: 0000100-41-4	<0.1	Eye Irrit. 2B;H320 Carcinogenicity 2;H351 Specific organ Tox. 1;H372	[1][2]
Calcium naphthenate CAS Number: 0061789-36-4	1 - 5	Eye Dam. 1;H318	[1]
Naphthenic acids, cobalt salts CAS Number: 0061789-51-3	0.10 - 1.0	Acute Tox. 4;H302 Skin Irrit. 2;H315 Skin Sens. 1;H317	[1]
2-Butanone oxime CAS Number: 0000096-29-7	0.10 - 1.0	Carc. 2;H351 Acute Tox. 4;H312 Eye Dam. 1;H318 Skin Sens. 1;H317	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give

artificial respiration. If unconscious, place in the recovery position and obtain immediate

medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and

seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a

recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview Effects of overexposure:

Acute: Eyes-may cause severe irritation, redness, tearing, blurred vision.

Skin/skin absorption- Prolonged or repeated contact can cause moderate irritation.

Defatting, dermatitis.

Breathing-excessive inhalation of vapors can cause nasal and Respiratory irritation and central nervous system effects including Dizziness, weakness, fatigue, nausea, headache

and possible unconsciousness.

^[1] Substance classified with a health or environmental hazard.

^[2] Substance with a workplace exposure limit.

^[3] PBT-substance or vPvB-substance.

^{*}The full texts of the phrases are shown in Section 16.

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Swallowing-can cause gastrointestinal, irritation, nausea, vomiting, and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis, which can be fatal. Possible cancer hazard. Contains an ingredient, which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Causes serious eye irritation.

May cause an allergic skin reaction.

Eyes Skin

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical, Foam, Water fog, Carbon Dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Burning may produce irritating Or toxic fumes. Carbon dioxide and carbon monoxide, various hydrocarbons, etc.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus with a full face piece.

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near container (even empty) because

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product (even just residue) can ignite explosively. All five gallon pails and large metal containers should be grounded and/or bonded when material is transferred.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Steps to be taken in case material is released or spilled: Eliminate all ignition sources (flares, flames including pilot Lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed, stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay earth, floor, absorbent, or other absorbent material and shoveled into containers.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Avoid contact with strong oxidizing agents, Strong alkalis, and strong mineral acids. See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

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CAS No.	Ingredient	Source	Value
0000096-29-7	2-Butanone oxime	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0001330-20-7	Xylene	OSHA	STEL 150 ppm
		ACGIH	TWA: 100 ppm STEL: 150 ppm
		NIOSH	No Established Limit
		Supplier	No Established Limit
0061789-36-4	Calcium naphthenate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0061789-51-3	Naphthenic acids, cobalt salts	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Proprietary	Alkyd Resin	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0000100-41-4	Ethyl Benzene(HAP)	OSHA	TWA 100 ppm
		ACGIH	TLV-TWA 100 ppm, TLV-STEL 125 ppm
		NIOSH	TWA 100 ppm
		Supplier	No Established Limit
0008032-32-4	VM&P Naphtha	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	TWA 350 mg/m3 C 1800 mg/m3 [15-minute]
		Supplier	No Established Limit

8.2. Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the

appropriate, certified respirators.

Eyes Chemical splash goggles are advised. (Consult your safety equipment supplier).

Skin Wear resistant gloves such as polyvinyl alcohol, Viton. Other protective equipment: To

prevent repeated or prolonged skin contact, wear impervious clothing and boots.

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Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the

use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits

suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or

using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance Liquid Odor Distinct

Odor threshold Not determined Hq Not Measured Melting point / freezing point Not Measured Initial boiling point and boiling range 308-374°F

Flash Point Closed cup 43°C

Evaporation rate (Ether = 1) (X) Slower Than N-BUTYL ACETATE

Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits **Lower Explosive Limit: 1.0% Upper Explosive Limit:** 6.0%

Vapor pressure (Pa) Not Measured

Vapor Density (X)Heavier Than Air ()Lighter than Air

Specific Gravity

0.97 Solubility in Water Not Measured

Partition coefficient n-octanol/water (Log Kow) Not Measured

Auto-ignition temperature Not Measured Not Measured **Decomposition temperature**

Viscosity (cSt) Not Measured

9.2. Other information

No other relevant information.

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10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Excessive heat and open flame.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents, Strong alkalis, strong mineral acids.

10.6. Hazardous decomposition products

Burning may produce irritating Or toxic fumes. Carbon dioxide and carbon monoxide, various hydrocarbons, etc.

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
VM&P Naphtha - (8032-32-4)	No data	No data	No data	No data	No data
	available	available	available	available	available
Calcium naphthenate - (61789-36-4)	No data	No data	No data	No data	No data
	available	available	available	available	available
Alkyd Resin - (Proprietary)	No data	No data	No data	No data	No data
	available	available	available	available	available

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Naphthenic acids, cobalt salts - (61789-51-3)	No data available	No data available	No data available	No data available	No data available
2-Butanone oxime - (96-29-7)	930.00, Rat - Category: 4	2,000.00, Rabbit - Category: 4	20.00, Rat - Category: 4	No data available	5,000.00, Rat - Category: 4
Xylene - (1330-20-7)	4,299.00, Rat - Category: 5	1,548.00, Rabbit - Category: 4	No data available	20.00, Rat - Category: NA	5,000.00, Rat - Category: 4
Ethyl Benzene(HAP) – (100-41-4)	3500, Rat- Category: 5	17 000 Rabbit- Category: 5	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value	
0000096-29-7	2-Butanone oxime	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0008032-32-4	8032-32-4 VM&P Naphtha OSHA Select Carcinogen: No			
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0061789-36-4	Calcium naphthenate	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0061789-51-3 Naphthenic acids, cobalt salts		OSHA	Select Carcinogen: Yes	
		NTP	Known: No; Suspected: No	
			Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;	
Proprietary Alkyd Resin OSHA Select Carcinogen: No NTP Known: No; Suspected: No		Select Carcinogen: No		
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0001330-20-7	Xylene	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;	
0000100-41-4	Ethyl Benzene(HAP)	OSHA	Select Carcinogen: No	
	NT		Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;	

Classification	Category	Hazard Description
Acute toxicity (oral)		Not Applicable
Acute toxicity (dermal)		Not Applicable

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Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes Skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization		Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity		Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity		Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	1	May be fatal if swallowed and enters airways.

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
VM&P Naphtha - (8032-32-4)	Not Available	Not Available	Not Available
Calcium naphthenate - (61789-36-4)	Not Available	4.80, Nitocra spinipes	Not Available
Alkyd Resin- (Proprietary)	Not Available	Not Available	Not Available
Naphthenic acids, cobalt salts - (61789-51-3)	Not Available	Not Available	Not Available
2-Butanone oxime - (96-29-7)	320.00, Leuciscus idus	500.00, Daphnia magna	83.00 (72 hr), Scenedesmus subspicatus
Xylene - (1330-20-7)	3.30, Oncorhynchus mykiss	8.50, Palaemonetes pugio	100.00 (72 hr), Chlorococcales
Ethyl Benzene (100-41-4)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

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No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

ICAO/IATA

DOT (Domestic Surface IMO / IMDG (Ocean

Transportation) Transportation)

 14.1. UN number
 UN1263
 UN1263
 UN1263

 14.2. UN proper shipping
 UN1263, Paint, 3, III
 Paint
 Paint

name

14.3. Transport hazard DOT Hazard Class: 3 IMDG: 3 Air Class: 3 class(es) Sub Class: Not Applicable

14.4. Packing group ||| ||| |||

14.5. Environmental hazards

IMDG Marine Pollutant: No;

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected

regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification B3 D2A

US EPA Tier II Hazards Fire: Yes

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Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

Xylene

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Naphthenic acids, cobalt salts

Xylene

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Xylene

V,M & P Naphtha

Pennsylvania RTK Substances (>1%):

Xvlene

V,M& P Naphtha

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly Flammable liquid and vapor.

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H315 Causes Skin irritation.

H319 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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