

### SECTION 1: Identification

#### 1.1. Identification

Product code : E199-G75  
Product name : #099 Solid Film Lubricant  
Type of product : Heat Curing, Corrosion Inhibiting  
Military/Aerospace Specification : MIL-PRF-46010 Color 1  
SAE AS5272 TYPE III

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Solid/Dry Film Lubricant  
Restrictions on use : Food/feedstuff additives

#### 1.3. Supplier

Sandstrom Products Company  
224 S Main St  
Port Byron, IL 61275  
USA  
T 309-523-2121 - F 309-230-9745

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC (800) 424-9300 | (703) 527-3887

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Carcinogenicity Category 1B	H350	May cause cancer
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H312 - Harmful in contact with skin  
H317 - May cause an allergic skin reaction  
H350 - May cause cancer  
H373 - May cause damage to organs through prolonged or repeated exposure  
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P272 - Contaminated work clothing must not be allowed out of the workplace.

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - If on skin: Wash with plenty of water.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P312 - Call a poison center or doctor if you feel unwell.  
P314 - Get medical advice/attention if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P322 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P363 - Wash contaminated clothing before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Diantimony trioxide	CAS-No.: 1309-64-4	10 – 15	Carc. 2, H351
zinc phosphate	CAS-No.: 7779-90-0	1 – 5	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-(propyloxy)ethanol	CAS-No.: 2807-30-9	3.658 – 4.35	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319
Distillates (petroleum), solvent-dewaxed heavy paraffinic	CAS-No.: 64742-65-0	0.216 – 0.288	Carc. 1B, H350
Alkyl Glycidyl Ether	CAS-No.: 68609-97-2	0.1 – 0.5	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
------------------	---

#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store locked up.
Packaging materials	: Store always product in container of same material as original container.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### #099 Solid Film Lubricant

No additional information available

#### 2-(propyloxy)ethanol (2807-30-9)

No additional information available

#### Alkyl Glycidyl Ether (68609-97-2)

No additional information available

#### Diantimony trioxide (1309-64-4)

##### USA - ACGIH - Occupational Exposure Limits

Local name	Antimony trioxide
ACGIH® TLV® TWA	0.02 mg/m <sup>3</sup> (Inhalable fraction)
Remark (ACGIH)	TLV® Basis: Pneumonitis. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2022

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

No additional information available

#### zinc phosphate (7779-90-0)

No additional information available

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

#### Materials for protective clothing:

Condition	Material

#### Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration

#### Eye protection:

Safety glasses

Type	Field of application	Characteristics

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Gray  
Odor : Mild solvent  
Odor threshold : No data available  
pH : No data available  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : No data available  
Flash point : 215 °F

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.37 g/cm3
Density	: 11.47 lb/gal
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 50 – 60 KU @ 77° F
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

VOC content	: 1.8 lb/gal
-------------	--------------

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified

### #099 Solid Film Lubricant

ATE US (dermal)	1982.63 mg/kg body weight
Unknown acute toxicity (GHS US)	50.48% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 92.16% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 96.51% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>2-(propyloxy)ethanol (2807-30-9)</b>	
ATE US (dermal)	1100 mg/kg body weight
<b>Alkyl Glycidyl Ether (68609-97-2)</b>	
LD50 oral rat	26800 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))
ATE US (oral)	26800 mg/kg body weight
ATE US (dust, mist)	5 mg/l/4h
<b>Diantimony trioxide (1309-64-4)</b>	
LD50 oral rat	> 20000 mg/kg (Rat, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 8300 mg/kg body weight Animal: rabbit, Remarks on results: other:
LC50 Inhalation - Rat	> 5.2 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: other:, Remarks on results: other:
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rabbit	> 2000 mg/kg Source: IUCLID
ATE US (dust, mist)	2.18 mg/l/4h
<b>zinc phosphate (7779-90-0)</b>	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 5.7 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (dust), 14 day(s))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
<b>Diantimony trioxide (1309-64-4)</b>	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
<b>Alkyl Glycidyl Ether (68609-97-2)</b>	
NOAEL (animal/female, F1)	200 mg/kg body weight Animal: rat, Animal sex: female, Guideline: EPA OTS 798.4420 (Preliminary Developmental Toxicity Screen)
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
<b>2-(propyloxy)ethanol (2807-30-9)</b>	
LOAEL (oral,rat,90 days)	195 mg/kg body weight Animal: rat, Animal sex: male
NOAEL (oral,rat,90 days)	< 195 mg/kg body weight Animal: rat, Animal sex: male
<b>Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)</b>	
LOAEL (oral,rat,90 days)	125 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
NOAEL (dermal,rat/rabbit,90 days)	≈ 1000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
zinc phosphate (7779-90-0)	
LOAEL (oral,rat,90 days)	53.8 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	31.52 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: 50 – 60 KU @ 77° F
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
-------------------	--

2-(propyloxy)ethanol (2807-30-9)	
LC50 - Fish [1]	> 5000 mg/l Test organisms (species): Pimephales promelas
Alkyl Glycidyl Ether (68609-97-2)	
LC50 - Fish [1]	0.002 mg/l Source: Ecological Structure Activity Relationships
Diantimony trioxide (1309-64-4)	
LC50 - Fish [1]	14.4 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	6.9 mg/l Test organisms (species): other:
ErC50 algae	> 36.6 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Antimony)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 - Fish [1]	> 5000 mg/l Source: IUCLID
EC50 - Crustacea [1]	> 1000 mg/l Source: IUCLID
zinc phosphate (7779-90-0)	
LC50 - Fish [1]	0.169 mg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across, Lethal)
EC50 - Crustacea [1]	0.86 mg/l (EPA 600/4-85/013: Method for measuring the acute toxicity of effluents to freshwater and marine organisms, 48 h, Daphnia magna, Static system, Fresh water, Read-across, GLP)



# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 12.2. Persistence and degradability

#### Alkyl Glycidyl Ether (68609-97-2)

Persistence and degradability	Readily biodegradable in water.
-------------------------------	---------------------------------

#### Diantimony trioxide (1309-64-4)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Chemical oxygen demand (COD)	Not applicable (inorganic)
------------------------------	----------------------------

ThOD	Not applicable (inorganic)
------	----------------------------

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Persistence and degradability	Biodegradability in water: no data available.
-------------------------------	---

#### zinc phosphate (7779-90-0)

Persistence and degradability	Biodegradability: not applicable.
-------------------------------	-----------------------------------

Chemical oxygen demand (COD)	Not applicable (inorganic)
------------------------------	----------------------------

ThOD	Not applicable (inorganic)
------	----------------------------

### 12.3. Bioaccumulative potential

#### Alkyl Glycidyl Ether (68609-97-2)

BCF - Fish [1]	160 – 263 (BCFWIN, Estimated value)
----------------	-------------------------------------

Partition coefficient n-octanol/water (Log Pow)	3.77 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
---	---

Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
---------------------------	--

#### Diantimony trioxide (1309-64-4)

BCF - Other aquatic organisms [1]	5.6 l/kg (17 day(s), Hyalella azteca, Fresh water, Experimental value, Fresh weight)
-----------------------------------	--

Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
---------------------------	--

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Partition coefficient n-octanol/water (Log Pow)	3.9 – 6 (Calculated)
---	----------------------

Bioaccumulative potential	No bioaccumulation data available.
---------------------------	------------------------------------

#### zinc phosphate (7779-90-0)

BCF - Other aquatic organisms [1]	116 – 60960 (21 day(s), Gammarus sp., Semi-static system, Salt water, Read-across, Fresh weight)
-----------------------------------	--

Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
---------------------------	--

### 12.4. Mobility in soil

#### Alkyl Glycidyl Ether (68609-97-2)

Mobility in soil	12830 Source: Quantitative Structure Activity Relation
------------------	--

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	> 5.63 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
--	--

Ecology - soil	Adsorbs into the soil.
----------------	------------------------

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Diantimony trioxide (1309-64-4)

Surface tension	No data available in the literature
Ecology - soil	Adsorbs into the soil.

### zinc phosphate (7779-90-0)

Surface tension	70.4 mN/m (20 °C, 2.7E-4 %, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Adsorbs into the soil.

### 12.5. Other adverse effects

No additional information available





## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

## SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
3082	UN3082	3082	3082
<b>14.2. Proper Shipping Name</b>			
Environmentally hazardous substances, liquid, n.o.s. (2-(propyloxy)ethanol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-(propyloxy)ethanol)	Environmentally hazardous substance, liquid, n.o.s. (2-(propyloxy)ethanol)
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9
	 Not applicable		
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT	TDG	IMDG	IATA
No supplementary information available			

### 14.6. Special precautions for user

#### DOT

UN-No. (DOT)	: UN3082
DOT Special Provisions (49 CFR 172.102)	: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No Limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No Limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

#### TDG

UN-No. (TDG)	: UN3082
--------------	----------

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

TDG Special Provisions	: 16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks. 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act", 99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be handled, offered for transport or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means containment and during transport. (2) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety. SOR/2014-306 UN3077, UN3082 SOR/2014-306
Explosive Limit and Limited Quantity Index	: 5 L
Excepted quantities (TDG)	: E1
Emergency Response Guide (ERG) Number	: 171
<b>IMDG</b>	
Special provision (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A
<b>IATA</b>	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provision (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Diantimony trioxide	CAS-No. 1309-64-4	10 – 15%
---------------------	-------------------	----------

#### Diantimony trioxide (1309-64-4)

CERCLA RQ	1000 lb
-----------	---------

#### 15.2. International regulations

##### CANADA

#### 2-(propyloxy)ethanol (2807-30-9)

Listed on the Canadian DSL (Domestic Substances List)

#### Alkyl Glycidyl Ether (68609-97-2)

Listed on the Canadian DSL (Domestic Substances List)

#### Diantimony trioxide (1309-64-4)

Listed on the Canadian DSL (Domestic Substances List)

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Listed on the Canadian DSL (Domestic Substances List)

#### zinc phosphate (7779-90-0)

Listed on the Canadian DSL (Domestic Substances List)

##### EU-Regulations

No additional information available

##### National regulations

#### Diantimony trioxide (1309-64-4)

Listed on IARC (International Agency for Research on Cancer)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)


Listed on INSQ (Mexican National Inventory of Chemical Substances)

# #099 Solid Film Lubricant

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 15.3. US State regulations

 **WARNING:** This product can expose you to Diantimony trioxide, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision date : 09/26/2025

Full text of H-phrases	
H226	Flammable liquid and vapor
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H350	May cause cancer
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, WE MAKE NO WARRANTY, EXPRESSED, OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.