



P2AO155SG-M

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Not applicable
Trade name	P2AO155SG-M
CAS No.	Mixture
EINECS No.	Mixture

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

Identified use(s)	Synthetic Bearing Lubricant
Uses advised against	None.

Details of the supplier of the safety data sheet

Company Identification	Permawick Company 3110 Permawick Drive Columbus, IN, 47201
Telephone	(812) 376-0703
Fax	(812) 372-1410
E-Mail (competent person)	sales@permawick.com
Only Representative	Experien Chemical Services (Europe) Limited PO Box 170 Thirsk YO 9AN UK *44 7791 573385 (UK 9am to 5pm)

Emergency telephone number

Emergency Phone No.	Monday - Friday, 8 am – 4:30 p.m. (EST) (812) 376-0703 CHEMTREC 24 hr. (800) 424-9300
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)

Physical Hazards	None
Health Hazards	None
Environmental Hazards	Hazardous to the aquatic environment, acute Category 3 Hazardous to the aquatic environment, Category 3 Long term hazard.
OSHA	Not classified

Label elements

Hazard Symbol



Warning

Signal word

Hazard statement(s)

Causes mild skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

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Precautionary statement(s)	Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Observe good industrial hygiene practices.
Response	Not classified as PBT or vPvB. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements. Dispose of contents/container (in accordance with related regulations). Dispose of contents/container in accordance with
Other hazards	local/regional/national/international regulations.
Additional Information	95.65% of the mixture consists of component(s) of unknown acute oral toxicity. 97.15% of the mixture consists of component(s) of unknown acute dermal toxicity. 93.3% of the mixture consists of component(s) of unknown acute inhalation toxicity. 97.15% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 97.15% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredient(s)	%W/W	CAS No.	Hazard statement(s)
MOLYBDENUM DISULFIDE	5 - < 10*	1317-33-5	
TRIPHENYL PHOSPHATE	1 - < 3*	115-86-6	
WHITE MINERAL OIL	1 - < 3*	8042-47-5	
1H-IMIDAZOLE-1-ETHANOL-(HEPTADECENYL)-4,5-DIHYDR O-	< 1*	, 27136-73-8 2	

Additional Information - Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.: None

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Avoid inhalation of vapours. Move person to fresh air. Keep patient at rest and give oxygen if breathing difficult. If symptoms occur obtain medical attention.
Skin Contact	Wash affected skin with soap and water.
Eye Contact	Eyes should be washed with plenty of water. If symptoms occur obtain medical attention.

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Ingestion Do not induce vomiting. Drink one glass of water. (or Milk.)
Seek medical treatment.

Most important symptoms and effects, both acute and delayed None

Indication of the immediate medical attention and special treatment needed None

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

-Suitable Extinguishing Media Extinguish with waterspray, dry chemical, sand or carbon dioxide.

-Unsuitable Extinguishing Media None anticipated.

Special hazards arising from the substance or mixture This product may give rise to hazardous fumes in a fire.

Advice for fire-fighters A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Avoid breathing dust/fume/gas/mist/vapours/spray.

Environmental precautions Use appropriate container to avoid environmental contamination.

Methods and material for containment and cleaning up Contain and cover spilled substance with dry sand or earth or other suitable dry material. Transfer to a container for disposal or recovery.

Reference to other sections None

Additional Information None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid breathing dust/fume/gas/mist/vapours/spray.

Conditions for safe storage, including any incompatibilities

-Storage Temperature Store at room temperature.
-Incompatible materials Strong oxidising agents.

Specific end use(s) Lubricating agent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)		STEL (ppm)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
MOLYBDENUM DISULFIDE	1317-33-5	15mg/m ³	3 mg/m ³	----	3 mg/m ³	
TRIPHENYL PHOSPHATE	115-86-6	3 mg/m ³	3 mg/m ³			

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TRADE SECRET	8042-47-5	5 mg/m ³	5 mg/m ³			
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Recommended monitoring method

None

Exposure controls

This material does not have established exposure limits. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter

US - California OELs: Skin designation

TRIPHENYL PHOSPHATE Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protection equipment

Eye/face protection

Safety spectacles.



Skin protection (Hand protection/ Other)

Gloves



Respiratory protection

Not normally required.



Thermal hazards

Not normally required.

Environmental Exposure Controls

Not normally required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Gel, translucent
Colour	Black, Smooth
Odour	Slight Mild petroleum
Odour Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	Not available
Flash Point (°C)	252°C [Cleveland Open cup]
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Explosive limit ranges	Not available
Vapour Pressure (Pascal)	Not available

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Vapour Density (Air=1)	Not available
Density (g/ml)	0.91
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Temperature (°C)	Not available
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt) @ 40°C (Base oil)	33.8 at 40° C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	None
Incompatible materials	Oxidizers
Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Substances

Not applicable

11.1.2 Mixtures - By analogy with similar materials:

Acute toxicity	Not to be expected.
Skin corrosion/irritation	Unlikely to cause skin irritation.
Serious eye damage/irritation	Unlikely to cause eye irritation.
Respiratory or skin sensitization	Not to be expected.
Germ cell mutagenicity	Not to be expected.
Carcinogenicity	Not to be expected.
Reproductive toxicity	Not to be expected.
STOT - single exposure	Not to be expected.
STOT - repeated exposure	Not to be expected.
Aspiration hazard	Not to be expected.

11.1.3 Substances in preparations / mixtures

MOLYBDENUM DISULFIDE (CAS 1317-33-5)

Acute toxicity

Inhalation

LC50 = 2820 (rat)

TRIPHENYL PHOSPHATE (CAS 115-86-6)

Acute

Dermal

LD50 7900 mg/kg (rabbit)

Oral

LD50 3500 mg/kg (rat)

WHITE MINERAL OIL (CAS 8042-47-5)

Acute

Oral

LD50 >5000 mg/kg (rat)

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11.2 Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

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Aquatic

Algae

Crutacea

74.7826 mg/L, 48 Hours estimated

Fish

3086.0869 mg/l, 96 hours estimated

Components

TRIPHENYL PHOSPHATE (CAS 115-86-6) Aquatic

Crustacea

EC50 Daphnia 0.86 – 1.2 mg/L, 48 Hours

Aquatic

Fish

LC50 Rainbow trout,donaldson trout 0.31 - 0.41 mg/l, 96 hours (Oncorhynchus mykiss)

WHITE MINERAL OIL (CAS 8042-47-5)

Aquatic

Fish

LC50 > 10000 mg/l, 96 Hours

Long Term

Not available

Persistence and degradability

Not available

Bioaccumulative potential

Not available

Mobility in soil

Results of PBT and vPvB assessment

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal should be in accordance with local, state or national legislation.Consult an accredited waste disposal contractor or the local authority for advice.

Additional Information

None known.

SECTION 14: TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

Not classified as dangerous for transport.

UN number

Proper Shipping Name

Transport hazard class(es)

Packing Group

Hazard label(s)

Environmental hazards

Special precautions for user

Land transport (ADR/RID)

UN number

Not classified as dangerous for transport.

Proper Shipping Name

Transport hazard class(es)

Packing Group

Marine Pollutant

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Special precautions for user

Sea transport (IMDG)

Not classified as dangerous for transport.

UN number
Proper Shipping Name
Transport hazard class(es)
Packing Group
Environmental hazards
Special precautions for user

Air transport (ICAO/IATA)

Not classified as dangerous for transport.

UN number
Proper Shipping Name
Transport hazard class(es)
Packing Group
Environmental hazards
Special precautions for user

Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not established

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	----	----	----

CERCLA Hazardous Substance List (40 CFR 302.4)

TRIPHENYL PHOSPHATE Listed.

SARA 311/312 - Hazard Categories:

Fire Sudden Release Reactivity Immediate (acute) Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	----	----

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

TRIPHENYL PHOSPHATE (CAS 115-86-6)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated. (SDWA)

US state regulations

California Proposition 65

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California Proposition 65 - CRT: Listed date/Carcinogenic substance

TRIPHENYL PHOSPHATE

International Inventories

Countries(s) or Region	Inventory Name	On Inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances list (DSL)	No
Canada	Non-Domestic Substances list (NDSL)	No
China	Inventory of existing chemical substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substance (ELINCS)	Yes
Japan	Inventory of Existing & new Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

Date of preparation: May 17, 2021

Additional Information: None.

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