Supersedes date 24/07/2013

SAFETY DATA SHEET PTFE DRY FILM LUBRICANT

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name PTFE DRY FILM LUBRICANT

Product No. AST-DFL400

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

Identified uses Lubricant.

1.3. Details of the supplier of the safety data sheet

Supplier ASTRAL CSL

Pilkington Industrial Estate

Rake Lane Swinton M278LP

+ 44 (0)161 643 0260 +44 (0) 870 199 2072 sales@astralcsl.com

1.4. Emergency telephone number: 0161 643 0260



SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Flam. Aerosol 1 - H222

Human health EUH066;Acute Tox. 4 - H312;Acute Tox. 4 - H332;Eye Irrit. 2 - H319

Environment Not classified.

Classification (1999/45/EEC) Xn;R20/21. Xi;R36. F+;R12. R66.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



P337+313



Signal Word	Danger
-------------	--------

Hazard Statements

H222 Extremely flammable aerosol.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Precautionary Statements

P102 Keep out of reach of children.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P261 Avoid breathing vapour/spray.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

Supplementary Precautionary Statements

P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.

P264 Wash contaminated skin thoroughly after handling.
P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P322 Specific measures (see ... on this label).

P333+313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50

°C/122°F.

Supplemental label information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

1-METHOXY-2-PROPANOL			< 1%
CAS-No.: 107-98-2	EC No.: 203-539-1		
Classification (EC 1272/2008) Flam. Liq. 3 - H226 STOT SE 3 - H336		Classification (67/548/EEC) R10 R67	
2-BUTOXYETHANOL			1-5%
CAS-No.: 111-76-2	EC No.: 203-905-0		
Classification (EC 1272/2008) Acute Tox. 4 - H302		Classification (67/548/EEC) Xn;R20/21/22	
Acute Tox. 4 - H312 Acute Tox. 4 - H332		Xi;R36/38	
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319			

ACETONE			< 1%
CAS-No.: 67-64-1	EC No.: 200-662-2		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Flam. Liq. 2 - H225		F;R11	
EUH066		Xi;R36	
Eye Irrit. 2 - H319		R66	
STOT SE 3 - H336		R67	
BUTANE			10-30%
CAS-No.: 106-97-8	EC No.: 203-448-7		
Classification (EC 1272/2008) Flam. Gas 1 - H220		Classification (67/548/EEC) F+:R12	

BUTYL ACETATE -norm			1-5%
CAS-No.: 123-86-4	EC No.: 204-658-1		
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066		Classification (67/548/EEC) R10 R66	
STOT SE 3 - H336 ETHANOL		R67	1-5%
CAS-No.: 64-17-5	EC No.: 200-578-6		
Classification (EC 1272/2008) Flam. Liq. 2 - H225		Classification (67/548/EEC) F;R11	
ETHYL ACETATE			30-60%
CAS-No.: 141-78-6	EC No.: 205-500-4		
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT SE 3 - H336		Classification (67/548/EEC) F;R11 Xi;R36 R66 R67	
ISOBUTANE		101	5-10%
CAS-No.: 75-28-5	EC No.: 200-857-2		
Classification (EC 1272/2008) Flam. Gas 1 - H220		Classification (67/548/EEC) F+;R12	
METHANOL			< 1%
CAS-No.: 67-56-1	EC No.: 200-659-6		
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370		Classification (67/548/EEC) F;R11 T;R23/24/25,R39/23/24/25	
PROPAN-2-OL			< 1%
CAS-No.: 67-63-0	EC No.: 200-661-7		
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336		Classification (67/548/EEC) F;R11 Xi;R36 R67	

PROPANE 10-30% CAS-No.: 74-98-6 EC No.: 200-827-9 Classification (EC 1272/2008) Classification (67/548/EEC) Flam. Gas 1 - H220 F+;R12 **XYLENE** 10-30% CAS-No.: 1330-20-7 EC No.: 215-535-7 Classification (EC 1272/2008) Classification (67/548/EEC) Flam. Liq. 3 - H226 R10 Xn;R20/21 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Xi;R38 Skin Irrit. 2 - H315

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Asp. Tox. 1 - H304

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort continues.

Skin contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eve contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

Aerosol cans may explode in a fire.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.2. Environmental precautions

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Let evaporate. Keep out of confined spaces because of explosion risk. If leakage cannot be stopped, evacuate area.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
1-METHOXY-2-PROPANOL	WEL	100 ppm(Sk)	375 mg/m3(Sk)	150 ppm(Sk)	560 mg/m3(Sk)	
2-BUTOXYETHANOL	WEL	25 ppm(Sk)		50 ppm(Sk)		
ACETONE				500 ppm	1210 mg/m3	
BUTANE	WEL	600 ppm	1450 mg/m3	750 ppm	1810 mg/m3	
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3	
ETHANOL	WEL	1000 ppm	1920 mg/m3			
ETHYL ACETATE	WEL	200		400		
ISOBUTANE	WEL	800 ppm		800 ppm		
METHANOL	WEL	200 ppm(Sk)	266 mg/m3(Sk)	250 ppm(Sk)	333 mg/m3(Sk)	
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	
PROPANE		Asphyxiating	Asphyxiating.	Asphyxiating	Asphyxiating.	
XYLENE	WEL	50 ppm(Sk)	220 mg/m3(Sk)	100 ppm(Sk)	441 mg/m3(Sk)	

WEL = Workplace Exposure Limit.
Ingredient Comments

WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment





Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Use chemical cartridge protection with appropriate cartridge.

Hand protection

Use protective gloves.

Eye protection

Use eye protection.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Aerosol.

Colour Black.

Odour Character

Odour Characteristic.
Solubility Insoluble in water

Flammability Limit - Lower(%) 0.8
Flammability Limit - Upper(%) 9.0

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with: Strong oxidising agents. Strong alkalis. Strong mineral acids.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system. Harmful by inhalation. Irritating to respiratory system.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach.

Skin contact

Harmful in contact with skin. Irritating to skin. Prolonged or repeated exposure may cause severe irritation. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye contact

Irritating to eyes. May cause chemical eye burns.

Route of entry

Inhalation. Skin and/or eye contact.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment if discharged into watercourses.

12.1. Toxicity

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN) 1950 UN No. (IMDG) 1950 UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper Shipping Name AEROSOLS

14.3. Transport hazard class(es)

ADR/RID/ADN Class 2

ADR/RID/ADN Class Class 2: Gases

ADR Label No. 2.1

IMDG Class 2.1

ICAO Class/Division 2.1

Transport Labels



14.4. Packing group

ADR/RID/ADN Packing group Not Applicable
IMDG Packing group Not Applicable
ICAO Packing group Not Applicable

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

EMS F-D, S-U

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

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

The Control of Substances Hazardous to Health Regulations 2002.

Statutory Instruments

Control of Substances Hazardous to Health.

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

Introduction to Local Exhaust Ventilation HS(G)37.

CHIP for everyone HSG(108).

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

Revision Date 25/02/2015

Revision 3

Supersedes date 24/07/2013

Risk Phrases In Full

R12 Extremely flammable.

R10 Flammable.

R20/21 Harmful by inhalation and in contact with skin.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R11 Highly flammable

R36/38 Irritating to eyes and skin.

R36 Irritating to eyes.
R38 Irritating to skin.

R66 Repeated exposure may cause skin dryness or cracking.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H370 Causes damage to organs << Organs>>.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H222 Extremely flammable aerosol.
H220 Extremely flammable gas.
H226 Flammable liquid and vapour.

H332 Harmful if inhaled.
H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

H331 Toxic if inhaled.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.