



## Safety Data Sheet according to Regulation (EC) No 1907/2006

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BONDERITE L-GP M 709 ACHESON known as MOLYDAG 709

SDS No. : 364423  
V003.1

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Replaces version from: 21.01.2016

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

BONDERITE L-GP M 709 ACHESON known as MOLYDAG 709

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

Intended use:

Dry film lubricant

#### 1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000

Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

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

##### Classification (CLP):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Toxic to reproduction	Category 2
H361d Suspected of damaging the unborn child.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central Nervous System	
Specific target organ toxicity - repeated exposure	Category 2
H373 May cause damage to organs through prolonged or repeated exposure.	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

#### 2.2. Label elements

##### Label elements (CLP):

**Hazard pictogram:****Contains**

Toluene

**Signal word:**

Danger

**Hazard statement:**

H225 Highly flammable liquid and vapor.  
 H315 Causes skin irritation.  
 H336 May cause drowsiness or dizziness.  
 H361d Suspected of damaging the unborn child.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H412 Harmful to aquatic life with long lasting effects.

**Supplemental information**

Restricted to professional users.

**Precautionary statement:  
Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
 No smoking.  
 P260 Do not breathe mist/vapours.  
 P264 Wash thoroughly after handling.

**Precautionary statement:  
Response**P370+P378 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.**2.3. Other hazards**

None if used properly.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Base substances of preparation:**

Pigment  
 solvent

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Toluene 108-88-3	203-625-9 01-2119471310-51	40- 60 %	Flam. Liq. 2 H225 Repr. 2 H361d Asp. Tox. 1 H304 STOT RE 2; Inhalation H373 Skin Irrit. 2 H315 STOT SE 3; Inhalation H336 Aquatic Chronic 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Move to fresh air, consult doctor if complaint persists.

**Skin contact:**

IF ON SKIN: Wash with plenty of soap and water.

In case of adverse health effects seek medical advice.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

**Ingestion:**

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Redness, inflammation.

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media:**

Carbon dioxide, foam, powder

Fine water spray

**Extinguishing media which must not be used for safety reasons:**

Water jet (solvent-containing product).

**5.2. Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in fires.

**5.3. Advice for firefighters**

Wear protective equipment.

Wear self-contained breathing apparatus.

**Additional information:**

Cool endangered containers with water spray jet.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

Danger of slipping on spilled product.

**6.2. Environmental precautions**

Do not empty into drains / surface water / ground water.

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

Dispose of contaminated material as waste according to Section 13.

Remove with liquid-absorbing material (sand, peat, sawdust).

Take up with liquid-absorbing material (sand).

**6.4. Reference to other sections**

See advice in section 8

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**SECTION 7: Handling and storage**

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**7.1. Precautions for safe handling**

- Avoid skin and eye contact.
- Ensure that workrooms are adequately ventilated.
- See advice in section 8
- Avoid open flames and sources of ignition.
- Take precautionary measures against static discharge.
- Use only non-sparking tools.
- Use explosion proof electric equipment.
- Ground/bond container and receiving equipment.
- Take measures to prevent the build-up of electrostatic charges.

## Hygiene measures:

- Wash hands before work breaks and after finishing work.
- Do not eat, drink or smoke while working.
- Take off contaminated clothing and wash before reuse.

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

- Ensure good ventilation/extraction.
- Store in sealed original container.

**7.3. Specific end use(s)**

Dry film lubricant

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure Limits

Valid for  
Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Toluene 108-88-3 [TOLUENE]	50	191	Time Weighted Average (TWA):		EH40 WEL
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):		EH40 WEL
Toluene 108-88-3 [TOLUENE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative	ECLTV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Molybdenum disulphide 1317-33-5 [MOLYBDENUM COMPOUNDS (AS MO), INSOLUBLE COMPOUNDS]		10	Time Weighted Average (TWA):		EH40 WEL
Molybdenum disulphide 1317-33-5 [MOLYBDENUM COMPOUNDS (AS MO), INSOLUBLE COMPOUNDS]		20	Short Term Exposure Limit (STEL):		EH40 WEL

#### Occupational Exposure Limits

Valid for  
Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Toluene 108-88-3 [TOLUENE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Toluene 108-88-3 [TOLUENE]	50	192	Time Weighted Average (TWA):	Indicative	ECLTV
Toluene 108-88-3 [TOLUENE]	100	384	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Molybdenum disulphide 1317-33-5 [MOLYBDENUM AND INSOLUBLE COMPOUNDS (AS MO), INHALABLE FRACTION]		10	Time Weighted Average (TWA):		IR_OEL
Molybdenum disulphide 1317-33-5 [MOLYBDENUM AND INSOLUBLE COMPOUNDS (AS MO), RESPIRABLE FRACTION]		3	Time Weighted Average (TWA):		IR_OEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Toluene 108-88-3	aqua (freshwater)		0,68 mg/l				
Toluene 108-88-3	sediment (freshwater)				16,39 mg/kg		
Toluene 108-88-3	sediment (marine water)				16,39 mg/kg		
Toluene 108-88-3	soil				2,89 mg/kg		
Toluene 108-88-3	sewage treatment plant (STP)		13,61 mg/l				
Toluene 108-88-3	aqua (marine water)		0,68 mg/l				
Toluene 108-88-3	aqua (intermittent releases)		0,68 mg/l				

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Toluene 108-88-3	Workers	Inhalation	Acute/short term exposure - local effects		384 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Acute/short term exposure - systemic effects		384 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Long term exposure - local effects		192 mg/m3	
Toluene 108-88-3	Workers	Inhalation	Long term exposure - systemic effects		192 mg/m3	
Toluene 108-88-3	Workers	dermal	Long term exposure - systemic effects		384 mg/kg	
Toluene 108-88-3	General population	Inhalation	Acute/short term exposure - local effects		226 mg/m3	
Toluene 108-88-3	General population	Inhalation	Acute/short term exposure - systemic effects		226 mg/m3	
Toluene 108-88-3	General population	Inhalation	Long term exposure - systemic effects		56,5 mg/m3	
Toluene 108-88-3	General population	dermal	Long term exposure - systemic effects		226 mg/kg	
Toluene 108-88-3	General population	oral	Long term exposure - systemic effects		8,13 mg/kg	
Toluene 108-88-3	General population	inhalation	Long term exposure - local effects		56,5 mg/m3	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

Engineering controls:

Ensure good ventilation/suction at the workplace.

**Respiratory protection:**

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

**Hand protection:**

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Fluorinated rubber (FKM;  $\geq 0.7$  mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Fluorinated rubber (FKM;  $\geq 0.7$  mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

**Eye protection:**

Protective goggles

Protective eye equipment should conform to EN166.

**Skin protection:**

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

**Advices to personal protection equipment:**

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	liquid
	liquid
	black
Odor	Solvent
Odour threshold	No data available / Not applicable
pH	Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	110 °C (230 °F)
Flash point	4 °C (39.2 °F); no method
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	29 mbar
(20 °C (68 °F))	
Vapour pressure	103 mbar
(50 °C (122 °F))	
Vapour pressure	128 mbar
(55 °C (131 °F))	
Relative vapour density:	No data available / Not applicable
Density	1,3 g/cm <sup>3</sup>
(20 °C (68 °F))	
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	Insoluble
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	50 - 100 mPa.s
()	

Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

**9.2. Other information**

No data available / Not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reaction with strong oxidants.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

No decomposition if used according to specifications.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

None if used for intended purpose.

In case of fire toxic gases can be released.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Toluene 108-88-3	LD50	5.580 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))

**Acute dermal toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Toluene 108-88-3	LD50	> 5.000 mg/kg	rabbit	not specified

**Acute inhalative toxicity:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Toluene 108-88-3	LC50	28,1 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

**Skin corrosion/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Toluene 108-88-3	irritating	4 h	rabbit	EU Method B.4 (Acute Toxicity: Dermal Irritation / Corrosion)



**Serious eye damage/irritation:**

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Toluene 108-88-3	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Toluene 108-88-3	not sensitising	Guinea pig maximisation test	guinea pig	EU Method B.6 (Skin Sensitisation)

**Germ cell mutagenicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Toluene 108-88-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Toluene 108-88-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

**Carcinogenicity**

No data available.

**Reproductive toxicity:**

No data available.

**STOT-single exposure:**

No data available.

**STOT-repeated exposure::**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Toluene 108-88-3	NOAEL 625 mg/kg	oral: gavage	13 weeks daily, 5 days/ week	rat	EU Method B.26 (Sub- Chronic Oral Toxicity Test: Repeated Dose 90- Day Oral Toxicity Study in Rodents)

**Aspiration hazard:**

The mixture is classified based on Viscosity data.

Hazardous substances CAS-No.	Viscosity (kinematic) Value	Temperature	Method	Remarks
Toluene 108-88-3	0,57 mm <sup>2</sup> /s	40 °C	not specified	

## SECTION 12: Ecological information

### General ecological information:

Do not empty into drains / surface water / ground water.

### 12.1. Toxicity

#### Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Toluene 108-88-3	NOEC	3,2 mg/l	28 d	Cyprinodon variegatus	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Toluene 108-88-3	LC50	5,5 mg/l	96 h	Oncorhynchus kisutch	OECD Guideline 203 (Fish, Acute Toxicity Test)

#### Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Toluene 108-88-3	EC50	11,5 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

#### Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Toluene 108-88-3	NOEC	0,74 mg/l	7 d	Ceriodaphnia dubia	other guideline:

#### Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Toluene 108-88-3	IC50	12 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

#### Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Toluene 108-88-3	NOEC	29 mg/l	16 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)

### 12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Toluene 108-88-3	readily biodegradable	aerobic	80 %	20 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

**12.3. Bioaccumulative potential**

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Toluene 108-88-3	90	3 d		Leuciscus idus melanotus	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

**12.4. Mobility in soil**

Hazardous substances CAS-No.	LogPow	Temperature	Method
Toluene 108-88-3	2,73	20 °C	EU Method A.8 (Partition Coefficient)

**12.5. Results of PBT and vPvB assessment**

Hazardous substances CAS-No.	PBT / vPvB
Toluene 108-88-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**12.6. Other adverse effects**

The product contains organic solvents which are insoluble in water. According to the requirements of the ATV regulations for the discharge of wastewater from commercial and industrial plant, organic solvents which are immiscible with water can only be discharged to an extent which corresponds to their solubility in water. The local discharge regulations take precedence.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

080111

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

<b>SECTION 14: Transport information</b>
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**14.1. UN number**

ADR	1263
RID	1263
ADN	1263
IMDG	1263
IATA	1263

**14.2. UN proper shipping name**

ADR	PAINT
RID	PAINT
ADN	PAINT
IMDG	PAINT
IATA	Paint

**14.3. Transport hazard class(es)**

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

**14.4. Packing group**

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

**14.6. Special precautions for user**

ADR	Special provision 640D Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

<b>SECTION 15: Regulatory information</b>
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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content (2010/75/EU)	49,4 %
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**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**National regulations/information (Great Britain):**

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)
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**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- H225 Highly flammable liquid and vapor.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.

**Further information:**

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**