

# SAFETY DATA SHEET



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

### 1.1 Product identifier

**Product name** Molub-Alloy Paste PL Spray  
**Product code** 468644-DE34  
**SDS no.** 468644  
**Product type** Aerosol.

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

Identified uses
General use of lubricants and greases in vehicles or machinery-Industrial General use of lubricants and greases in vehicles or machinery-Professional

**Use of the substance/mixture** Aerosol.  
 For specific application advice see appropriate Technical Data Sheet or consult our company representative.

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

**Supplier** BP Europa SE  
 Geschäftsbereich Industrieschmierstoffe  
 Erkelenzer Straße 20  
 D-41179 Mönchengladbach  
 Germany  
  
 Telefon: +49 (0)800 7235-074  
**E-mail address** MSDSadvice@bp.com

### 1.4 Emergency telephone number

**EMERGENCY TELEPHONE NUMBER** Carechem: +44 (0) 1235 239 670 (24/7)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** Mixture  
Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]  
 Aerosol 1, H222, H229  
 STOT SE 3, H336  
 Aquatic Chronic 2, H411  
 See Section 16 for the full text of the H statements declared above.  
 See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

### 2.2 Label elements

#### Hazard pictograms



**Signal word** Danger  
**Hazard statements** H222 - Extremely flammable aerosol.  
 H229 - Pressurised container: May burst if heated.  
 H336 - May cause drowsiness or dizziness.  
 H411 - Toxic to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273 - Avoid release to the environment.  
 P251 - Do not pierce or burn, even after use.

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## SECTION 2: Hazards identification

<b>Response</b>	P391 - Collect spillage. P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
<b>Storage</b>	P410 - Protect from sunlight. P412 - Do not expose to temperatures exceeding 50 °C/122 °F.
<b>Disposal</b>	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	Pentane
<b>Supplemental label elements</b>	Repeated exposure may cause skin dryness or cracking. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

### EU Regulation (EC) No. 1907/2006 (REACH)

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** Not applicable.

### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** Not applicable.  
**Tactile warning of danger** Not applicable.

### 2.3 Other hazards

**Results of PBT and vPvB assessment** Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

**Other hazards which do not result in classification** Defatting to the skin.  
Prolonged or repeated contact may dry skin and cause irritation.  
Solvent "sniffing" (abuse) or intentional overexposure to vapours can produce serious central nervous system effects, including unconsciousness, and possibly death.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Product definition** Mixture  
Hydrocarbon solvent and additives. Propellant: Butane/Propane.

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Pentane	REACH #: 01-2119459286-30 EC: 203-692-4 CAS: 109-66-0 Index: 601-006-00-1	≥25 - ≤50	Flam. Liq. 1, H224 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1] [2]
Butane	REACH #: 01-2119474691-32 EC: 203-448-7 CAS: 106-97-8 Index: 601-004-00-0	≥25 - ≤50	Flam. Gas 1, H220 Press. Gas (Comp.), H280	[2]
Propane	REACH #: 01-2119486944-21 EC: 200-827-9 CAS: 74-98-6 Index: 601-003-00-5	≤10	Flam. Gas 1, H220 Press. Gas (Comp.), H280	[2]
Ethyl acetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	<10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
Isobutane	REACH #: 01-2119485395-27 EC: 200-857-2 CAS: 75-28-5 Index: 601-004-00-0	≤3	Flam. Gas 1, H220 Press. Gas (Comp.), H280	[2]
Graphite	REACH #: 01-2119486977-12 EC: 231-955-3 CAS: 7782-42-5	≤3	Not classified.	[2]

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### SECTION 3: Composition/information on ingredients

Amines, N-C16-C18-alkyl- (evennumbered, C18 unsaturated) propane-1,3-diaminium di[(9Z)- octadec-9-enoate]	REACH #: 01-2119974117-33 ≤0.3 EC: - CAS: 1307863-78-0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411	[1]
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See Section 16 for the full text of the H statements declared above.

Type

- [1] Substance classified with a health or environmental hazard
  - [2] Substance with a workplace exposure limit
  - [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
  - [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
  - [5] Substance of equivalent concern
  - [6] Additional disclosure due to company policy
- Occupational exposure limits, if available, are listed in Section 8.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognised skin cleanser. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention.  If exposure to vapour, mists or fumes causes drowsiness, headache, blurred vision or irritation of the eyes, nose or throat, remove immediately to fresh air. Keep patient warm and at rest. If any symptoms persist obtain medical advice.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Poisoning very unlikely unless deliberate ingestion of large quantities has occurred. Get medical attention immediately.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

See Section 11 for more detailed information on health effects and symptoms.

##### Potential acute health effects

<b>Inhalation</b>	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
<b>Ingestion</b>	No known significant effects or critical hazards.
<b>Skin contact</b>	Defatting to the skin. May cause skin dryness and irritation.
<b>Eye contact</b>	No known significant effects or critical hazards.

##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Inhalation</b>	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
<b>Ingestion</b>	Ingestion of large quantities may cause nausea and diarrhoea.
<b>Skin contact</b>	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
<b>Eye contact</b>	Potential risk of transient stinging or redness if accidental eye contact occurs.

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

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**

Use foam or all-purpose dry chemical to extinguish.

**Unsuitable extinguishing media**

Do not use water jet. The use of a water jet may cause the fire to spread by splashing the burning product.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture**

Bursting aerosol containers may be propelled from a fire at high speed. Extremely flammable aerosol. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

**Hazardous combustion products**

Combustion products may include the following:  
 carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)  
 metal oxide/oxides  
 phosphorus oxides  
 sulphur oxides (SO, SO<sub>2</sub>, etc.)

### 5.3 Advice for firefighters

**Special precautions for fire-fighters**

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Special protective equipment for fire-fighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel**

Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Eliminate all ignition sources. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment.

**For emergency responders**

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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

**Small spill**

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

**Large spill**

Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.  
 See Section 5 for firefighting measures.  
 See Section 8 for information on appropriate personal protective equipment.  
 See Section 12 for environmental precautions.  
 See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Avoid contact of spilt material and runoff with soil and surface waterways. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Do not spray on a naked flame or any incandescent material. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Keep away from heat and direct sunlight. Eliminate all ignition sources. Store and use only in equipment/containers designed for use with this product. Use appropriate containment to avoid environmental contamination.

#### Germany - Storage code

2B

### 7.3 Specific end use(s)

#### Recommendations

See section 1.2 and Exposure scenarios in annex, if applicable.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Pentane	<b>TRGS 900 OEL (Germany).</b> TWA: 3000 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2001 PEAK: 6000 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 4/2001 TWA: 1000 ppm 8 hours. Issued/Revised: 4/2001 PEAK: 2000 ppm 15 minutes. Issued/Revised: 4/2001
Butane	<b>TRGS 900 OEL (Germany).</b> TWA: 2400 mg/m <sup>3</sup> 8 hours. Issued/Revised: 4/2001 PEAK: 9600 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 4/2001 TWA: 1000 ppm 8 hours. Issued/Revised: 4/2001 PEAK: 4000 ppm 15 minutes. Issued/Revised: 4/2001
Propane	<b>TRGS 900 OEL (Germany).</b> PEAK: 7200 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/1997 PEAK: 4000 ppm 15 minutes. Issued/Revised: 1/1997 TWA: 1800 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/1997 TWA: 1000 ppm 8 hours. Issued/Revised: 1/1997
Ethyl acetate	<b>TRGS 900 OEL (Germany).</b> PEAK: 1460 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 6/2017 PEAK: 400 ppm 15 minutes. Issued/Revised: 6/2017 TWA: 730 mg/m <sup>3</sup> 8 hours. Issued/Revised: 6/2017 TWA: 200 ppm 8 hours. Issued/Revised: 6/2017
Isobutane	<b>TRGS 900 OEL (Germany).</b> TWA: 2400 mg/m <sup>3</sup> 8 hours. Issued/Revised: 1/1997 PEAK: 9600 mg/m <sup>3</sup> 15 minutes. Issued/Revised: 1/1997 TWA: 1000 ppm 8 hours. Issued/Revised: 1/1997 PEAK: 4000 ppm 15 minutes. Issued/Revised: 1/1997
Graphite	<b>TRGS 900 OEL (Germany).</b>

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**SECTION 8: Exposure controls/personal protection**

TWA: 1.25 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2014 Form: Respirable fraction  
 PEAK: 2.5 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 4/2014 Form: Respirable fraction  
 PEAK: 20 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 1/2012 Form: Inhalable fraction  
 TWA: 10 mg/m<sup>3</sup> 8 hours. Issued/Revised: 1/2012 Form: Inhalable fraction

**Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived No Effect Level**

No DNELs/DMELs available.

**Predicted No Effect Concentration**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls**

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

**Individual protection measures**

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Provided an air-filtering/air-purifying respirator is suitable, a multiple type of gas filter for organic gases and vapours (boiling point ≤65°C and >65°C) can be used for vapour. Use filter types A with AX or comparable standard. Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used. Use filter type P or comparable standard. Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

**Eye/face protection**

Safety glasses with side shields.

**Skin protection**

**Hand protection**

**General Information:**

Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures).

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## SECTION 8: Exposure controls/personal protection

Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions.

Recommended: Nitrile gloves.

### Breakthrough time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

Our recommendations on the selection of gloves are as follows:

### Continuous contact:

Gloves with a minimum breakthrough time of 240 minutes, or >480 minutes if suitable gloves can be obtained.

If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to.

### Short-term / splash protection:

Recommended breakthrough times as above.

It is recognised that for short-term, transient exposures, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

### Glove Thickness:

For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.

### Skin and body

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

### Refer to standards:

Respiratory protection: EN 529  
Gloves: EN 420, EN 374  
Eye protection: EN 166  
Filtering half-mask: EN 149  
Filtering half-mask with valve: EN 405  
Half-mask: EN 140 plus filter  
Full-face mask: EN 136 plus filter  
Particulate filters: EN 143  
Gas/combined filters: EN 14387

## SECTION 8: Exposure controls/personal protection

<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	Aerosol.
<b>Colour</b>	Black.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	<35°C (<95°F)
<b>Flash point</b>	Closed cup: -80°C (-112°F)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Lower: 1.5% Upper: 9.5%
<b>Vapour pressure</b>	300 to 799.9 kPa (2250 to 6000 mm Hg) [20°C (68°F)]
<b>Vapour density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Density</b>	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 20°C
<b>Solubility(ies)</b>	insoluble in water.
<b>Partition coefficient: n-octanol/water</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

### 9.2 Other information

#### Aerosol product

<b>Type of aerosol</b>	Spray
<b>Heat of combustion</b>	38.09 kJ/g

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
<b>10.2 Chemical stability</b>	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
<b>10.4 Conditions to avoid</b>	Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.
<b>10.5 Incompatible materials</b>	Reactive or incompatible with the following materials: oxidising materials.
<b>10.6 Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity estimates

Route	ATE value
Not available.	

#### Information on likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

- Inhalation** Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Ingestion** No known significant effects or critical hazards.
- Skin contact** Defatting to the skin. May cause skin dryness and irritation.
- Eye contact** No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
Exposure to high concentrations can cause dizziness, lightheadedness, headache, nausea and blurred vision. Higher levels may cause unconsciousness.  
May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
- Ingestion** No specific data.
- Skin contact** Adverse symptoms may include the following:  
irritation  
dryness  
cracking
- Eye contact** Adverse symptoms may include the following:  
irritation  
redness

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Inhalation** Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
- Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.
- Skin contact** Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
- Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

#### Potential chronic health effects

- General** Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** No known significant effects or critical hazards.
- Mutagenicity** No known significant effects or critical hazards.
- Developmental effects** No known significant effects or critical hazards.
- Fertility effects** No known significant effects or critical hazards.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Environmental hazards** Toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

Expected to be biodegradable.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** Not available.

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## SECTION 12: Ecological information

**Mobility** Volatile. Liquid. insoluble in water.

### 12.5 Results of PBT and vPvB assessment

Product does not meet the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

**12.6 Other adverse effects** No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

**Hazardous waste** Yes.

#### European waste catalogue (EWC)

Waste code	Waste designation
16 05 04*	gases in pressure containers (including halons) containing hazardous substances

However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

#### Packaging








**Methods of disposal** Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.

Waste code	European waste catalogue (EWC)
15 01 10*	packaging containing residues of or contaminated by hazardous substances

**Special precautions** This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

**References** Commission 2014/955/EU  
Directive 2008/98/EC

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN1950	UN1950	UN1950	UN1950
<b>14.2 UN proper shipping name</b>	AEROSOLS	AEROSOLS, flammable	AEROSOLS. Marine pollutant (Pentane)	AEROSOLS, flammable
<b>14.3 Transport hazard class(es)</b>	2  	2  	2.1  	2.1 
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
<b>Additional information</b>	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Tunnel code</b> (D)	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <b>Emergency schedules</b> F-D, S-U	The environmentally hazardous substance mark may appear if required by other transportation regulations.

**14.6 Special precautions for user** Not available.

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		<b>Language</b> ENGLISH

**SECTION 14: Transport information**

ADR/RID Classification code: 5F

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not available.

**SECTION 15: Regulatory information**

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Other regulations

**REACH Status**

The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

**United States inventory (TSCA 8b)**

All components are listed or exempted.

**Australia inventory (AICS)**

All components are listed or exempted.

**Canada inventory**

All components are listed or exempted.

**China inventory (IECSC)**

All components are listed or exempted.

**Japan inventory (ENCS)**

All components are listed or exempted.

**Korea inventory (KECI)**

All components are listed or exempted.

**Philippines inventory (PICCS)**

All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI)**

Not determined.

**Aerosol dispensers**

3



Extremely flammable

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

<b>Category</b>
P3a E2

National regulations

**Hazardous incident ordinance**

P3a  
E2

**Hazard class for water**

2 (classified according AwSV)

**Prohibited Chemicals Regulation (ChemVerbotsV)**

When placed on the market in Germany, this product is not subject to the Prohibited Chemicals Regulation (ChemVerbotsV).

## SECTION 15: Regulatory information

**Occupational restrictions** Observe employment restrictions in the following:  
Gesetz zum Schutz der arbeitenden Jugend (Jugendarbeitsschutzgesetz – JArbSchG)  
Gesetz zum Schutz von Müttern bei der Arbeit, in der Ausbildung und im Studium  
(Mutterschutzgesetz – MuSchG)

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for one or more of substances within this mixture. A Chemical Safety Assessment has not been carried out for the mixture itself.

## SECTION 16: Other information

**Abbreviations and acronyms**

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SADT = Self-Accelerating Decomposition Temperature  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVCB = Complex hydrocarbon substance  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative  
Varies = may contain one or more of the following 101316-69-2 / RRN 01-2119486948-13, 101316-70-5, 101316-71-6, 101316-72-7 / RRN 01-2119489969-06, 64741-88-4 / RRN 01-2119488706-23, 64741-89-5 / RRN 01-2119487067-30, 64741-95-3 / RRN 01-2119487081-40, 64741-96-4 / RRN 01-2119483621-38, 64741-97-5 / RRN 01-2119480374-36, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN 01-2119985177-24, 64742-45-6, 64742-52-5 / RRN 01-2119467170-45, 64742-53-6 / RRN 01-2119480375-34, 64742-54-7 / RRN 01-2119484627-25, 64742-55-8 / RRN 01-2119487077-29, 64742-56-9 / RRN 01-2119480132-48, 64742-57-0 / RRN 01-2119489287-22, 64742-58-1, 64742-62-7 / RRN 01-2119480472-38, 64742-63-8, 64742-64-9, 64742-65-0 / RRN 01-2119471299-27, 64742-70-7 / RRN 01-2119487080-42, 72623-85-9 / RRN 01-2119555262-43, 72623-86-0 / RRN 01-2119474878-16, 72623-87-1 / RRN 01-2119474889-13, 74869-22-0 / RRN 01-2119495601-36, 90669-74-2 / RRN 01-2119970171-43

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aerosol 1, H222, H229 STOT SE 3, H336 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method

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**SECTION 16: Other information**

<b>Full text of abbreviated H statements</b>	H220	Extremely flammable gas.
	H224	Extremely flammable liquid and vapour.
	H225	Highly flammable liquid and vapour.
	H280	Contains gas under pressure; may explode if heated.
	H304	May be fatal if swallowed and enters airways.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
	H373	May cause damage to organs through prolonged or repeated exposure.
	H400	Very toxic to aquatic life.
	H411	Toxic to aquatic life with long lasting effects.
<b>Full text of classifications [CLP/GHS]</b>	Aquatic Acute 1, H400	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
	Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
	Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
	EUH066	Repeated exposure may cause skin dryness or cracking.
	Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
	Flam. Gas 1, H220	FLAMMABLE GASES - Category 1
	Flam. Liq. 1, H224	FLAMMABLE LIQUIDS - Category 1
	Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
	Press. Gas (Comp.), H280	GASES UNDER PRESSURE - Compressed gas
	Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
	STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	

**History**

<b>Date of issue/ Date of revision</b>	04/10/2018.
<b>Date of previous issue</b>	07/09/2018.
<b>Prepared by</b>	Product Stewardship

 **Indicates information that has changed from previously issued version.**

**Notice to reader**

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The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

## Annex to the extended Safety Data Sheet (eSDS)

Industrial

### Identification of the substance or mixture

<b>Product definition</b>	Mixture
<b>Code</b>	468644-DE34
<b>Product name</b>	Molub-Alloy Paste PL Spray

### Section 1: Title

<b>Short title of the exposure scenario</b>	General use of lubricants and greases in vehicles or machinery - Industrial
<b>List of use descriptors</b>	<p><b>Identified use name:</b> General use of lubricants and greases in vehicles or machinery-Industrial</p> <p><b>Process Category:</b> PROC01, PROC02, PROC08b, PROC09</p> <p><b>Sector of end use:</b> SU03</p> <p><b>Subsequent service life relevant for that use:</b> No.</p> <p><b>Environmental Release Category:</b> ERC04, ERC07</p> <p><b>Specific Environmental Release Category:</b> ATIEL-ATC SPERC 4.Biv1</p>

<b>Processes and activities covered by the exposure scenario</b>	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.
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## Section 2 Operational conditions and risk management measures

### Section 2.1 Control of worker exposure

#### Product characteristics:

<b>Physical state:</b>	Liquid, vapour pressure < 0.5 kPa
<b>Concentration of substance in product:</b>	Covers use of substance/product up to 100 % (unless stated differently)
<b>Frequency and duration of use:</b>	Covers daily exposures up to 8 hours
<b>Other conditions affecting workers exposure:</b>	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented

#### Contributing scenarios: Operational conditions and risk management measures

General measures applicable to all activities:  
 Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product also via contamination on hands.

General exposures (closed systems):  
 No other specific measures identified.

Initial factory fill of equipment Use in contained systems:  
 No other specific measures identified.

Initial factory fill of equipment open systems:  
 Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out operation for more than 4 hours.

Operation of equipment containing engine oils and similar Use in contained systems:  
 No other specific measures identified.

Equipment cleaning and maintenance:  
 Drain down system prior to equipment break-in or maintenance. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Equipment cleaning and maintenance Operation is carried out at elevated temperature (> 20°C above ambient temperature):  
 Drain down and flush system prior to equipment break-in or maintenance. Provide extract ventilation to emission

**Molub-Alloy Paste PL Spray**

**General use of lubricants and greases in vehicles or machinery - Industrial**

points when contact with warm (>50°C) lubricant is likely. Wear chemical-resistant gloves (tested to EN374) in combination with intensive management supervision controls. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Storage:  
Store substance within a closed system.

## Section 2.2: Control of environmental exposure

### Amounts used:

**EU tonnage of risk determining substance per year:** 2.63E+3 Tonnes/year

### Frequency and duration of use:

**Emission days** 300

### Environment factors not influenced by risk management:

**Local freshwater dilution factor** 10

**Local marine water dilution factor** 100

### Other conditions affecting environmental exposure:

Negligible wastewater emissions as process operates without water contact.

**Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)** 2.00E-11

### Technical conditions and measures at process level (source) to prevent release:

Common practices vary across sites thus conservative process release estimates used.

### Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Prevent discharge of undissolved substance to or recover from onsite wastewater.

User sites are assumed to be provided with oil/water separators and waste water to be discharged via a sewage treatment plant

### Organisational measures to prevent/limit release from site:

Do not apply industrial sludge to natural soils.

Sewage sludge should be incinerated, contained or reclaimed.

### Conditions and measures related to sewage treatment plant:

**Estimated substance removal from wastewater via on-site sewage treatment** 87

**Assumed domestic sewage treatment plant flow rate (m<sup>3</sup>/d)** 2.00E+3

**Maximum allowable site tonnage (M<sub>safe</sub>) based on release following total wastewater treatment removal as product:** 27064.6

### Conditions and measures related to external treatment of waste for disposal:

External treatment and disposal of waste should comply with applicable local and/or national regulations.

### Conditions and measures related to external recovery of waste:

External recovery and recycling of waste should comply with applicable local and/or national regulations.

## Section 3: Exposure estimation and reference to its source

### Exposure estimation and reference to its source - Environment

**Exposure assessment (environment):** Used ECETOC TRA model (May 2010 release).

### Exposure estimation and reference to its source - Workers

**Exposure assessment (human):** The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

## Section 4: Guidance to check compliance with the exposure scenario

**Environment**

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see [www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

**Health**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.



## Annex to the extended Safety Data Sheet (eSDS)

Professional

### Identification of the substance or mixture

Product definition	Mixture
Code	468644-DE34
Product name	Molub-Alloy Paste PL Spray

### Section 1: Title

Short title of the exposure scenario	General use of lubricants and greases in vehicles or machinery - Professional
List of use descriptors	<b>Identified use name:</b> General use of lubricants and greases in vehicles or machinery-Professional <b>Process Category:</b> PROC01, PROC02, PROC08a, PROC08b, PROC20 <b>Sector of end use:</b> SU22 <b>Subsequent service life relevant for that use:</b> No. <b>Environmental Release Category:</b> ERC09a, ERC09b <b>Specific Environmental Release Category:</b> ESVOC SpERC 9.6b.v1

Processes and activities covered by the exposure scenario	Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.
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### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

##### Product characteristics:

Physical state:	Liquid, vapour pressure < 0.5 kPa
Concentration of substance in product:	Covers use of substance/product up to 100 % (unless stated differently)
Frequency and duration of use:	Covers daily exposures up to 8 hours
Other conditions affecting workers exposure:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented

#### Contributing scenarios: Operational conditions and risk management measures

General measures applicable to all activities:

Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product also via contamination on hands.

Operation of equipment containing engine oils and similar Use in contained systems:

No other specific measures identified.

Material transfers Non-dedicated facility:

Avoid carrying out activities involving exposure for more than 4 hours. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Equipment cleaning and maintenance Dedicated facility:

Drain down system prior to equipment break-in or maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Storage:

Store substance within a closed system.

## Section 2.2: Control of environmental exposure

### Amounts used:

EU tonnage of risk determining substance per year: 5.39 Tonnes/year

### Frequency and duration of use:

Emission days 365

### Environment factors not influenced by risk management:

Local freshwater dilution factor 10

Local marine water dilution factor 100

### Other conditions affecting environmental exposure:

Negligible wastewater emissions as process operates without water contact.

Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan) 5.00E-04

### Technical conditions and measures at process level (source) to prevent release:

Common practices vary across sites thus conservative process release estimates used.

### Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:

Prevent discharge of undissolved substance to or recover from onsite wastewater.

### Organisational measures to prevent/limit release from site:

Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

### Conditions and measures related to sewage treatment plant:

Estimated substance removal from wastewater via on-site sewage treatment 87

Assumed domestic sewage treatment plant flow rate (m<sup>3</sup>/d) 2.00E+3

Maximum allowable site tonnage (M<sub>Safe</sub>) based on release following total wastewater treatment removal as product: 153.88

### Conditions and measures related to external treatment of waste for disposal:

External treatment and disposal of waste should comply with applicable local and/or national regulations.

### Conditions and measures related to external recovery of waste:

External recovery and recycling of waste should comply with applicable local and/or national regulations.

## Section 3: Exposure estimation and reference to its source

### Exposure estimation and reference to its source - Environment

Exposure assessment (environment): Used ECETOC TRA model (May 2010 release).

### Exposure estimation and reference to its source - Workers

Exposure assessment (human): The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

## Section 4: Guidance to check compliance with the exposure scenario

### Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see [www.ATIEL.org/REACH\\_GES](http://www.ATIEL.org/REACH_GES)

### Health

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

**Product name** Molub-Alloy Paste PL Spray

**Product code** 468644-DE34

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