# SAFETY DATA SHEET

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

### 1.1 Product identifier

**Product name** **Molub-Alloy 860/460-2 ES**

**Product code** 461168-DE03

**SDS no.** 461168

**Product type** Grease

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

**Use of the substance/ mixture** Grease for industrial applications.
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]**

Not classified.

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards.

### 2.2 Label elements

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Supplemental label elements** Contains Reaction products of 2,5-dimercapto-1,3,4-thiadiazole, sodium salt, with 1-octanethiol and hydrogen peroxide. May produce an allergic reaction. Safety data sheet available on request.

**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**

## SECTION 2: Hazards identification

**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.

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification** Defatting to the skin.
Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.
See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Product definition** Mixture

Highly refined mineral oil and additives Thickening agent.

| Product/ingredient name | Identifiers | % | Regulation (EC) No. 1272/2008 [CLP] | Type |
|---|---|---|---|---|
| Dilithium azelate (Nonanedioic acid dilithium salt) | REACH #: 01-2120119814-57<br>EC: 254-184-4<br>CAS: 38900-29-7 | ≤3 | Acute Tox. 4, H302 | [1] |
| Graphite | REACH #: 01-2119486977-12<br>EC: 231-955-3<br>CAS: 7782-42-5 | ≤3 | Not classified. | [2] |
| Reaction products of 2,5-dimercapto-1,3,4-thiadiazole, sodium salt, with 1-octanethiol and hydrogen peroxide | REACH #: 01-2120792779-28<br>EC: -<br>CAS: - | ≤0.3 | Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 4, H413 | [1] |

**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

**Eye contact** 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.

**Skin contact** Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.

**Inhalation** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**Ingestion** Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**Protection of first-aiders** No action shall be taken involving any personal risk or without suitable training.

### 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**

## SECTION 4: First aid measures

**Inhalation** No known significant effects or critical hazards.

**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.

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

**Inhalation** Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.

**Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

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

**Notes to physician** Treatment should in general be symptomatic and directed to relieving any effects.
Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

**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** No specific fire or explosion hazard.

**Hazardous combustion products** Combustion products may include the following:
carbon oxides (CO, $CO_2$) (carbon monoxide, carbon dioxide)
metal oxide/oxides

### 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.

**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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Floors may be slippery; use care to avoid falling. 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).

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

**Small spill** Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

## SECTION 6: Accidental release measures

**Large spill**

Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. If emergency personnel are unavailable, contain spilt material. Suction or scoop the spill into appropriate disposal or recycling vessels, then cover spill area with oil absorbent. 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

### 7.1 Precautions for safe handling

**Protective measures**

Put on appropriate personal protective equipment.

**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**

Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store and use only in equipment/containers designed for use with this product. Do not store in unlabelled containers.

**Germany - Storage code**

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### 7.3 Specific end use(s)

**Recommendations**

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|---|---|
| Graphite | **TRGS 900 OEL (Germany).**<br>TWA: 1.25 mg/m³ 8 hours. Issued/Revised: 4/2014 Form: Respirable fraction<br>PEAK: 2.5 mg/m³ 15 minutes. Issued/Revised: 4/2014 Form: Respirable fraction<br>PEAK: 20 mg/m³ 15 minutes. Issued/Revised: 1/2012 Form: Inhalable fraction<br>TWA: 10 mg/m³ 8 hours. Issued/Revised: 1/2012 Form: Inhalable fraction |

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

**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**

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|---|---|---|---|---|
| Dilithium azelate (Nonanedioic acid dilithium salt) | DNEL | Long term Dermal - | 13.5 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Dermal - | 0.172 mg/cm² | Workers | Local |

**Predicted No Effect Concentration**

## SECTION 8: Exposure controls/personal protection

| Product/ingredient name | Type | Compartment Detail | Value | Method Detail |
|---|---|---|---|---|
| Dilithium azelate (Nonanedioic acid dilithium salt) | - | Fresh water | 0.023 mg/l | Assessment Factors |
| | - | Marine water | 0.0023 mg/l | Assessment Factors |
| | - | Intermittent release | 0.23 mg/l | Assessment Factors |

### 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**

In case of insufficient ventilation, wear suitable respiratory equipment.
For protection against metal working fluids, respiratory protection that is classified as “resistant to oil” (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m3). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.
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).

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:

## SECTION 8: Exposure controls/personal 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

**Environmental exposure controls**

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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | |
|---|---|
| **Physical state** | Grease |
| **Colour** | Black. |
| **Odour** | Not available. |
| **Odour threshold** | Not available. |
| **pH** | Not applicable. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Drop Point** | >250 °C |
| **Flash point** | Closed cup: 269°C (516.2°F) [Estimated. Based on Lubricants - Base Oils] |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not available. |

## SECTION 9: Physical and chemical properties

| | |
|---|---|
| **Upper/lower flammability or explosive limits** | Not available. |
| **Vapour pressure** | Not available. |
| **Vapour density** | Not available. |
| **Relative density** | Not available. |
| **Density** | <1000 kg/m³ (<1 g/cm³) at 20°C |
| **Solubility(ies)** | insoluble in water. |
| **Partition coefficient: n-octanol/ water** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Explosive properties** | Not available. |
| **Oxidising properties** | Not available. |

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** — No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**10.2 Chemical stability** — The product is stable.

**10.3 Possibility of hazardous reactions** — Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.

**10.4 Conditions to avoid** — No specific data.

**10.5 Incompatible materials** — Reactive or incompatible with the following materials: oxidising materials.

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

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

| Product/ingredient name | Result / Route | Test authority / Number | Species | Dose | Exposure | Remarks |
|---|---|---|---|---|---|---|
| Dilithium azelate (Nonanedioic acid dilithium salt) | LD50 Oral | OECD 420 | Rat - Female | >300 mg/kg | - | - |

**Acute toxicity estimates**

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|---|---|---|---|---|
| Molub-Alloy 860/460-2 ES | 17062.4 | N/A | N/A | N/A | N/A |
| Dilithium azelate (Nonanedioic acid dilithium salt) | 500 | N/A | N/A | N/A | N/A |
| 2,5-bis(octyldithio)-1,3,4-thiadiazole | N/A | N/A | N/A | 11 | N/A |

**Information on likely routes of exposure** — Routes of entry anticipated: Dermal, Inhalation.

**Potential acute health effects**

**Inhalation** — No known significant effects or critical hazards.

**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**

## SECTION 11: Toxicological information

**Inhalation** No specific data.

**Ingestion** No specific data.

**Skin contact** Adverse symptoms may include the following:
irritation
dryness
cracking

**Eye contact** No specific data.

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

**Inhalation** Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation.

**Ingestion** Ingestion of large quantities may cause nausea and diarrhoea.

**Eye contact** Potential risk of transient stinging or redness if accidental eye contact occurs.

**Potential chronic health effects**

**General** No known significant effects or critical hazards.

**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** Not classified as dangerous

### 12.2 Persistence and degradability

Expected to be biodegradable.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** Not available.

**Mobility** Grease. 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

### 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 |
|---|---|
| 12 01 12* | spent waxes and fats |

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** 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 13: Disposal considerations

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

## SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - | - |
| **14.4 Packing group** | - | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **Additional information** | - | - | - | - |

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

**14.7 Transport in bulk according to IMO instruments** 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.

**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.

**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 active 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)** At least one component is not listed.

**Korea inventory (KECI)** All components are listed or exempted.

**Philippines inventory (PICCS)** All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI)** All components are listed or exempted.

**Ozone depleting substances (1005/2009/EU)**

## SECTION 15: Regulatory information

Not listed.

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

Not listed.

**EU - Water framework directive - Priority substances**

None of the components are listed.

**Seveso Directive**

This product is not controlled under the Seveso Directive.

**National regulations**

**Hazardous incident ordinance**

| | |
|---|---|
| **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). |
| **Occupational restrictions** | Observe employment restrictions in the following:<br>Gesetz zum Schutz der arbeitenden Jugend (Jugendarbeitsschutzgesetz – JArbSchG)<br>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 the 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 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, 64742-01-4 / RRN 01-2119488707-21, 64742-44-5 / RRN

## SECTION 16: Other information

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, 64742-65-0 / 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

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

| Classification | Justification |
|---|---|
| Not classified. | |

**Full text of abbreviated H statements**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H413 | May cause long lasting harmful effects to aquatic life. |

**Full text of classifications [CLP/GHS]**

| | |
|---|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 4 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4 |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |

**History**

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**Date of previous issue** 05/11/2020.

**Prepared by** Product Stewardship

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

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