

# SAFETY DATA SHEET



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

### 1.1 Product identifier

<b>Product name</b>	<b>Aral Systemreiniger M</b>
<b>Product code</b>	456077-DE02
<b>SDS no.</b>	456077
<b>Product type</b>	Liquid.

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

Identified uses
Use of lubricants and greases in open systems-Industrial Use of lubricants and greases in open systems-Professional

**Use of the substance/mixture** Cleaner.  
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

Aral AG  
Geschäftsbereich Schmierstoffe  
Überseeallee 1  
D-20457 Hamburg

Customer Service Center / Environmental Protection / Product Safety: +49 (0)40 639-52288

**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]**

Skin Irrit. 2, H315  
Eye Dam. 1, H318  
Aquatic Chronic 3, H412

**Additional information** CLP: Not classified as hazardous when diluted below 5%

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

<b>Product name</b> Aral Systemreiniger M	<b>Product code</b> 456077-DE02	<b>Page:</b> 1/17
<b>Version</b> 2.02 <b>Date of issue</b> 16 January 2017	<b>Format</b> Germany (Germany)	<b>Language</b> ENGLISH

## SECTION 2: Hazards identification

<b>Hazard statements</b>	H318 - Causes serious eye damage. H315 - Causes skin irritation. H412 - Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
<b>Prevention</b>	P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment.
<b>Response</b>	P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a POISON CENTER or physician.
<b>Storage</b>	Not applicable.
<b>Disposal</b>	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	(ethylenedioxy)dimethanol alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether
<b>Supplemental label elements</b>	Not applicable.

### 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

**Other hazards which do not result in classification** Defatting to the skin.

## SECTION 3: Composition/information on ingredients

**Substance/mixture** Mixture  
Alkalis and additives in aqueous solution.

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
(ethylenedioxy)dimethanol	EC: 222-720-6 CAS: 3586-55-8	≤10	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
dipropylene glycol methyl ether	REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8	≤10	Not classified.	[2]
alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether	CAS: 68154-99-4	≤10	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
Alcohols, C9-11, ethoxylated	CAS: 68439-46-3	≤3	Eye Dam. 1, H318	[1]
Alcohols, C12-15, ethoxylated propoxylated	CAS: 68551-13-3	≤2.2	Aquatic Acute 1, H400 (M=1)	[1]
pyridine-2-thiol 1-oxide, sodium salt	EC: 223-296-5 CAS: 3811-73-2	≤0.22	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	[1] [2]

See Section 16 for the full text of the H statements declared above.

<b>Product name</b> Aral Systemreiniger M	<b>Product code</b> 456077-DE02	<b>Page:</b> 2/17
<b>Version</b> 2.02	<b>Date of issue</b> 16 January 2017	<b>Format</b> Germany (Germany)
	<b>Language</b> ENGLISH	

## SECTION 3: Composition/information on ingredients

### 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

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. Chemical burns must be treated promptly by a physician. Get medical attention immediately.
<b>Skin contact</b>	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.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms appear. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<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. Wash out mouth with water if person is conscious. Get medical attention if symptoms occur.
<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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

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

### 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
---------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Use foam or all-purpose dry chemical to extinguish.
<b>Unsuitable extinguishing media</b>	Do not use water jet.

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

<b>Hazards from the substance or mixture</b>	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	Combustion products may include the following: carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO <sub>2</sub> etc.)

### 5.3 Advice for firefighters

<b>Special precautions for fire-fighters</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Special protective equipment for fire-fighters</b>	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.

**Product name** Aral Systemreiniger M

**Product code** 456077-DE02

**Page:** 3/17

**Version** 2.02      **Date of issue** 16 January 2017

**Format** Germany  
(Germany)

**Language** ENGLISH

## 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 spilled material. Floors may be slippery; use care to avoid falling. Do not breathe vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Contact emergency personnel.

#### For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

Avoid dispersal of spilled 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.

### 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. 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. Contaminated absorbent material may pose the same hazard as the spill 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. Do not breathe vapour or mist. Do not ingest. Avoid contact of spilled material and runoff with soil and surface waterways. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Empty containers retain product residue and can be hazardous. Use only with adequate ventilation. Do not get in eyes, on skin or on clothing.

#### 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 between the following temperatures: 5 to 40°C (41 to 104°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. 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. Use appropriate containment to avoid environmental contamination.

#### Germany - Storage code

12

### 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
dipropylene glycol methyl ether	<p><b>MAK-Werte Liste (Germany).</b>                      PEAK: 310 mg/m<sup>3</sup>, 4 times per shift, 15 minutes. Issued/Revised: 7/2013                      PEAK: 50 ppm, 4 times per shift, 15 minutes. Issued/Revised: 7/2013                      TWA: 310 mg/m<sup>3</sup> 8 hours. Issued/Revised: 7/2013                      TWA: 50 ppm 8 hours. Issued/Revised: 7/2013</p> <p><b>TRGS900 AGW (Germany).</b>                      PEAK: 310 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 4/2001                      PEAK: 50 ppm 15 minutes. Issued/Revised: 4/2001                      TWA: 310 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2001                      TWA: 50 ppm 8 hours. Issued/Revised: 4/2001</p>
pyridine-2-thiol 1-oxide, sodium salt	<p><b>MAK-Werte Liste (Germany). Absorbed through skin.</b>                      TWA: 1 mg/m<sup>3</sup> 8 hours. Issued/Revised: 7/2002 Form: Inhalable fraction                      PEAK: 2 mg/m<sup>3</sup>, 4 times per shift, 15 minutes. Issued/Revised: 7/2002                      Form: Inhalable fraction</p> <p><b>TRGS900 AGW (Germany). Absorbed through skin.</b>                      TWA: 1 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2001 Form: Inhalable fraction                      PEAK: 2 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 4/2001 Form: Inhalable fraction</p>

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.

This product contains a preservative that may release trace amounts of formaldehyde during use.

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

<b>Product name</b> Aral Systemreiniger M	<b>Product code</b> 456077-DE02	<b>Page:</b> 5/17
<b>Version</b> 2.02 <b>Date of issue</b> 16 January 2017	<b>Format</b> Germany (Germany)	<b>Language</b> ENGLISH

## SECTION 8: Exposure controls/personal protection

Use with adequate ventilation.  
In case of insufficient ventilation, wear suitable respiratory equipment.  
Recommended: half-face mask - inorganic gases/vapor filter (Type B) - particulate filter.  
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.  
Chemical splash goggles.

[Eye/face protection](#)

[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.

Wear suitable gloves.  
Recommended: Butyl 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.

## SECTION 8: Exposure controls/personal protection

### 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

<b>Physical state</b>	Liquid.
<b>Colour</b>	Yellow. [Light]
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	8.8 [Conc. (% w/w): 5%]
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Open cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<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>	Soluble 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>	Kinematic: 5.1 mm <sup>2</sup> /s (5.1 cSt) at 40°C
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

### 9.2 Other information

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>	High temperatures
<b>10.5 Incompatible materials</b>	Reactive or incompatible with the following materials: oxidising materials. Slightly reactive or incompatible with the following materials: acids.
<b>10.6 Hazardous decomposition products</b>	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 estimates

Route	ATE value
Oral	5854.1 mg/kg
Dermal	22000 mg/kg

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

#### Potential acute health effects

<b>Inhalation</b>	May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes.
<b>Ingestion</b>	Irritating to mouth, throat and stomach.
<b>Skin contact</b>	Causes skin irritation. Defatting to the skin.
<b>Eye contact</b>	Causes serious eye damage.

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

<b>Inhalation</b>	No specific data.
<b>Ingestion</b>	Adverse symptoms may include the following: stomach pains
<b>Skin contact</b>	Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
<b>Eye contact</b>	Adverse symptoms may include the following: pain watering redness

#### 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.

#### Potential chronic health effects

<b>General</b>	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.



**SECTION 12: Ecological information**

**12.1 Toxicity**

**Environmental hazards** Harmful 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.

**Mobility** Liquid. Soluble in water.

**12.5 Results of PBT and vPvB assessment**

**PBT** Not applicable.

**vPvB** Not applicable.

**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
12 03 01*	aqueous washing liquids

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-

**SECTION 14: Transport information**

<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-

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

**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

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)** All components are listed or exempted.

National regulations

**Hazard class for water** 2 Appendix No. 4 (classified according VwVwS)

**15.2 Chemical safety assessment** This product contains substances for which Chemical Safety Assessments are still required.

**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

<b>Product name</b> Aral Systemreiniger M	<b>Product code</b> 456077-DE02	<b>Page:</b> 10/17
<b>Version</b> 2.02	<b>Date of issue</b> 16 January 2017	<b>Format</b> Germany (Germany)
		<b>Language</b> ENGLISH

**SECTION 16: Other information**

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  
 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

**Full text of abbreviated H statements**

H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

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

Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4  
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4  
 Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4  
 Aquatic Acute 1, H400 ACUTE AQUATIC HAZARD - Category 1  
 Aquatic Chronic 1, H410 LONG-TERM AQUATIC HAZARD - Category 1  
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

**History**

**Date of issue/ Date of revision** 16/01/2017.  
**Date of previous issue** 03/01/2017.  
**Prepared by** Product Stewardship

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

**Notice to reader**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

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.

<b>Product name</b> Aral Systemreiniger M	<b>Product code</b> 456077-DE02	<b>Page:</b> 11/17
<b>Version</b> 2.02	<b>Date of issue</b> 16 January 2017	<b>Format</b> Germany (Germany)
		<b>Language</b> ENGLISH



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

Industrial

### Identification of the substance or mixture

Product definition	Mixture
Code	456077-DE02
Product name	Aral Systemreiniger M

### Section 1: Title

Short title of the exposure scenario	Use of lubricants and greases in open systems - Industrial
List of use descriptors	<b>Identified use name:</b> Use of lubricants and greases in open systems-Industrial <b>Process Category:</b> PROC01, PROC02, PROC07, PROC08b, PROC09, PROC10, PROC13 <b>Sector of end use:</b> SU03 <b>Subsequent service life relevant for that use:</b> No. <b>Environmental Release Category:</b> ERC04 <b>Specific Environmental Release Category:</b> ATIEL-ATC SPERC 4.Ci.v1

Processes and activities covered by the exposure scenario	Covers use of lubricants and greases in open systems, including application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways. Includes associated product storage, material transfers, sampling and maintenance activities.
-----------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### 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

The following information provides minimum risk management measures for the contributing scenarios identified within this lubricant use group. However, more detailed information on control measures e.g. specific glove types may be documented in Section 8 of the main body of this safety data sheet.

Please review Section 8 in conjunction with the information on this Generic Exposure Scenario.

##### 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. Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release, e.g. spraying.

##### Material transfers Manual:

Avoid carrying out activities involving exposure for more than 1 hour.

##### Material transfers Automated process with (semi) closed systems:

Ensure material transfers are under containment or extract ventilation.

##### Roller, spreader, flow application:

Provide extract ventilation to points where emissions occur.

##### Spraying:

Carry out in a vented booth or extracted enclosure.

##### Treatment by dipping and pouring:

Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

**Aral Systemreiniger M**

**Use of lubricants and greases in open systems - Industrial**

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.

Storage:

Store substance within a closed system.

## Section 2.2: Control of environmental exposure

### Product characteristics:

Applicability domain: product in which the risk determining substance has the following hazard profile:

LogKow:

Vapour pressure:

PNEC Freshwater aquatic range (mg/L):

### Amounts used:

**EU tonnage of risk determining substance per year:** 3.81E+01 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 air (after typical onsite RMMs)** 5.00E-05

**Release fraction to soil from process (after typical onsite RMMs)** 0

**Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)** No data available yet

### 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** No data available yet

**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** No data available yet

**Maximum allowable site tonnage (M<sub>Safe</sub>) based on release following total wastewater treatment removal as product:** No data available yet

### 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	456077-DE02
Product name	Aral Systemreiniger M

### Section 1: Title

Short title of the exposure scenario	Use of lubricants and greases in open systems - Professional
List of use descriptors	<b>Identified use name:</b> Use of lubricants and greases in open systems-Professional <b>Process Category:</b> PROC01, PROC02, PROC08a, PROC10, PROC11, PROC13 <b>Sector of end use:</b> SU22 <b>Subsequent service life relevant for that use:</b> No. <b>Environmental Release Category:</b> ERC08a, ERC08d <b>Specific Environmental Release Category:</b> ATIEL-ATC SPERC 8.Cp.v1

Processes and activities covered by the exposure scenario	Covers use of lubricants and greases in open systems, including application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways. Includes associated product storage, material transfers, sampling and maintenance activities.
Assessment Method	See Section 3

### Section 2 Operational conditions and risk management measures

#### Section 2.1 Control of worker exposure

Physical state:	Liquid, vapour pressure < 0.5 kPa
Amounts used:	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.

Material transfers Manual: Avoid carrying out activities involving exposure for more than 1 hour.

Roller, spreader, flow application: Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Avoid carrying out activities involving exposure for more than 4 hours. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Spraying: Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Avoid carrying out activities involving exposure for more than 1 hour. Wear a respirator conforming to EN140 with type A/P2 filter or better. Wear suitable coveralls to prevent exposure to the skin. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Treatment by dipping and pouring: Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Equipment cleaning and maintenance: Drain down system prior to equipment break-in or maintenance. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan.

Avoid carrying out activities involving exposure for more than 4 hours. 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

<b>Product characteristics:</b>	Applicability domain: product in which the risk determining substance has the following hazard profile: LogKow: Vapour pressure: PNEC Freshwater aquatic range (mg/L):
<b>Amounts used:</b>	2.24E+01 Tonnes/year
<b>Frequency and duration of use:</b>	
<b>Emission days</b>	365
<b>Environment factors not influenced by risk management:</b>	
<b>Local freshwater dilution factor</b>	10
<b>Local marine water dilution factor</b>	100
<b>Other conditions affecting environmental exposure:</b>	Negligible wastewater emissions as process operates without water contact.
<b>Release fraction to air (after typical onsite RMMs)</b>	1.00E-04
<b>Release fraction to soil from process (after typical onsite RMMs)</b>	1E-03
<b>Release fraction to wastewater from process (after typical onsite RMMs and before sewage treatment plan)</b>	No data available yet
<b>Technical conditions and measures at process level (source) to prevent release:</b>	Common practices vary across sites thus conservative process release estimates used.
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil:</b>	Prevent discharge of undissolved substance to or recover from onsite wastewater.
<b>Organisational measures to prevent/limit release from site:</b>	Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.
<b>Conditions and measures related to sewage treatment plant:</b>	
<b>Estimated substance removal from wastewater via on-site sewage treatment</b>	No data available yet
<b>Maximum allowable site tonnage (M<sub>Safe</sub>) based on release following total wastewater treatment removal</b>	No data available yet
<b>Conditions and measures related to external treatment of waste for disposal:</b>	External treatment and disposal of waste should comply with applicable local and/or national regulations.
<b>Conditions and measures related to external recovery of waste:</b>	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

<b>Environment</b>	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 <a href="http://www.ATIEL.org/REACH_GES">www.ATIEL.org/REACH_GES</a>
--------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



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