

# SAFETY DATA SHEET



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

### 1.1 Product identifier

**Product name** Aral Bremsflüssigkeit HS DOT 4  
**Product code** 456288-DE04  
**SDS no.** 456288  
**Product type** Liquid.

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

**Use of the substance/  
mixture** Brake fluids.  
 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** Aral AG  
 Geschäftsbereich Schmierstoffe  
 Überseeallee 1  
 D-20457 Hamburg  
 Germany

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 \[CLP/GHS\]](#)  
 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** 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

## SECTION 2: Hazards identification

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  Experimental data on one or more of the components has been used to determine all or part of the hazard classification of this product.

## SECTION 3: Composition/information on ingredients

Substance/mixture  Mixture

Polyethylene glycol Proprietary performance additives.

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<input checked="" type="checkbox"/> Ethanol, 2-butoxy-, manufacture of, by-products from	REACH #: 01-2119475115-41 EC: 310-287-7 CAS: 161907-77-3	≥10 - ≤15	Eye Dam. 1, H318	[1]
2,2'-oxybisethanol	REACH #: 01-2119457857-21 EC: 203-872-2 CAS: 111-46-6	<10	Acute Tox. 4, H302 STOT RE 2, H373 (kidneys) (oral)	[1] [2]
Di-isopropanolamine	REACH #: 01-2119475444-34 EC: 203-820-9 CAS: 110-97-4 Index: 603-083-00-7	≤2.1	Eye Irrit. 2, H319	[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

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 if irritation develops.

#### Skin contact

Flush contaminated skin with plenty of water. 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 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.

#### 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.

### 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. 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

#### Suitable extinguishing media

In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

#### Unsuitable extinguishing media

Do not use water jet.

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

#### Hazards from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst.

#### Hazardous combustion products

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

#### Special precautions for fire-fighters

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.

#### 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 spilled 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 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).

### 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. 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. 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 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.

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## SECTION 7: Handling and storage

Not suitable  Prolonged exposure to elevated temperature  
 Germany - Storage code  0

### 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
<input checked="" type="checkbox"/> 2'-oxybisethanol	<p><b>TRGS900 AGW (Germany).</b>                      TWA: 44 mg/m<sup>3</sup> 8 hours. Issued/Revised: 4/2001                      PEAK: 176 mg/m<sup>3</sup> 15 minutes. Issued/Revised: 4/2001                      TWA: 10 ppm 8 hours. Issued/Revised: 4/2001                      PEAK: 40 ppm 15 minutes. Issued/Revised: 4/2001</p> <p><b>MAK-Werte Liste (Germany).</b>                      TWA: 10 ppm 8 hours. Issued/Revised: 7/2013                      PEAK: 40 ppm, 4 times per shift, 15 minutes. Issued/Revised: 7/2013                      TWA: 44 mg/m<sup>3</sup> 8 hours. Issued/Revised: 7/2013                      PEAK: 176 mg/m<sup>3</sup>, 4 times per shift, 15 minutes. Issued/Revised: 7/2013</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.

**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

In case of insufficient ventilation, wear suitable respiratory equipment. 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

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## SECTION 8: Exposure controls/personal 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: Butyl gloves.  
Neoprene 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.

## SECTION 8: Exposure controls/personal protection

**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.
<b>Odour</b>	☑ Not available.
<b>Odour threshold</b>	☑ Not available.
<b>pH</b>	☑ 7.5 to 9
<b>Melting point/freezing point</b>	☑ -70°C (<-94°F)
<b>Initial boiling point and boiling range</b>	☑ 260°C (>500°F)
<b>Flash point</b>	☑ Closed cup: >125°C (>257°F) [Pensky-Martens.]
<b>Evaporation rate</b>	☑ Not available.
<b>Flammability (solid, gas)</b>	☑ Not available.
<b>Upper/lower flammability or explosive limits</b>	☑ Lower: 1.5%
<b>Vapour pressure</b>	☑ 0.13 kPa (<1 mm Hg) [20°C (68°F)]
<b>Vapour density</b>	☑ Not available.
<b>Relative density</b>	☑ Not available.
<b>Density</b>	☑ 1065 kg/m³ (1.065 g/cm³) 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: 16 mm²/s (16 cSt) at 20°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>	☑ Avoid all possible sources of ignition (spark or flame).



## SECTION 10: Stability and reactivity

### 10.5 Incompatible materials

Miscible in water.  
Do not use in brake systems requiring mineral oil.  
On contact these fluids will soften and may lift industrial coatings and paints.

Reactive or incompatible with the following materials:  
strong acids  
Strong 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 estimates

Route	ATE value
<input checked="" type="checkbox"/> Oral	5050.5 mg/kg

#### Information on likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation.

#### Potential acute health effects

##### Inhalation

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

##### Ingestion

Diethylene glycol: Ingestion of diethylene glycol can cause metabolic acidosis, kidney damage, central nervous system depression, and convulsions. The estimated human lethal dose is approximately 100 ml (3.4 ounces for an adult).

##### Skin contact

No known significant effects or critical hazards.

##### Eye contact

Not classified as an eye irritant. Based on data available for this or related materials.

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

##### Inhalation

May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

##### Ingestion

No specific data.

##### Skin contact

No specific data.

##### Eye contact

No specific data.

#### 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

May cause damage to organs through prolonged or repeated exposure. (kidney)

##### Carcinogenicity

No known significant effects or critical hazards.

##### Mutagenicity

No known significant effects or critical hazards.

##### Developmental effects

Birth defects and decreased fetal weight have been observed in laboratory animals fed diethylene glycol in large amounts repeatedly during pregnancy.

##### 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

This product is not expected to bioaccumulate through food chains in the environment.

### 12.4 Mobility in soil

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**SECTION 12: Ecological information**

**Soil/water partition coefficient (K<sub>oc</sub>)**  Not available.  
**Mobility**  Spillages may penetrate the soil causing ground water contamination.

**12.5 Results of PBT and vPvB assessment**

**PBT**  Not applicable.  
**vPvB**  Not applicable.

**12.6 Other adverse effects**

**Other ecological information**  Miscible in water.

**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
<input checked="" type="checkbox"/> 6 01 13*	brake fluids

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.  
**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 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	<input checked="" type="checkbox"/> Not regulated.	<input checked="" type="checkbox"/> Not regulated.	<input checked="" type="checkbox"/> Not regulated.	<input checked="" type="checkbox"/> Not regulated.
<b>14.2 UN proper shipping name</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>14.3 Transport hazard class(es)</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>14.4 Packing group</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>14.5 Environmental hazards</b>	<input checked="" type="checkbox"/> No.	<input checked="" type="checkbox"/> No.	<input checked="" type="checkbox"/> No.	<input checked="" type="checkbox"/> No.
<b>Additional information</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**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

<b>REACH Status</b>	<input checked="" type="checkbox"/> The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
<b>United States inventory (TSCA 8b)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>Australia inventory (AICS)</b>	<input checked="" type="checkbox"/> At least one component is not listed.
<b>Canada inventory</b>	<input checked="" type="checkbox"/> At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China inventory (IECSC)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>Japan inventory (ENCS)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>Korea inventory (KECI)</b>	<input checked="" type="checkbox"/> At least one component is not listed.
<b>Philippines inventory (PICCS)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	<input checked="" type="checkbox"/> All components are listed or exempted.
<b>National regulations</b>	
<b>Hazard class for water</b>	<input checked="" type="checkbox"/> 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

<b>Abbreviations and acronyms</b>	<p>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                  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</p>
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**SECTION 16: Other information**

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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373 (oral)	May cause damage to organs through prolonged or repeated exposure if swallowed.

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

☑ Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
STOT RE 2, H373 (oral)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (oral) - Category 2

**History**

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☑ Indicates information that has changed from previously issued version.

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