

# SAFETY DATA SHEET

## SIMULSOL SL 26 C

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

#### 1.1 Product identifier

**Product trade name** : SIMULSOL SL 26 C  
**Product code** : 38455Z

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

**Material uses** : Non ionic surfactant. Emulsifying agent.

##### Identified uses

Manufacture of substance APG C10-16; CAS: 110615-47-9  
 Distribution , Formulation APG C10-16; CAS: 110615-47-9  
 Industrial use APG C10-16; CAS: 110615-47-9  
 Professional use, End use APG C10-16; CAS: 110615-47-9

See Annex to the Safety data sheet for additional information in the Exposure Scenario(s).

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

**Supplier** : SEPPIC S.A.  
 22 Terrasse Bellini - Paris La Défense  
 92806 Puteaux CEDEX - France  
 Phone: +33(0)1 42 91 40 00  
 Fax: +33(0)1 42 91 41 41

**e-mail address of person responsible for this SDS** : MSDSinfo.SEPPIC@airliquide.com

#### 1.4 Emergency telephone number

**National advisory body/Poison Centre** : UNITED KINGDOM :  
 999

**Supplier** : SEPIPROD.  
 Tél.: +33 (0)5 63 72 69 69

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315  
 Eye Dam. 1, H318

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

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

#### 2.2 Label elements

##### Hazard pictograms



**Signal word** : Danger

**Hazard statements** : Causes serious eye damage. Causes skin irritation.

**Contains** : D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides

##### Precautionary statements

**Prevention** : Wear suitable gloves. Wear eye or face protection. Wash hands thoroughly after handling.

**Date of issue/Date of revision** : 06/06/2016.

1/28

SIMULSOL SL 26 C

**SECTION 2: Hazards identification**

**Response** : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**2.3 Other hazards**

**Other hazards which do not result in classification** : None known.

**SECTION 3: Composition/information on ingredients**

**3.2 Mixtures** : Mixture

**Product description** : Solution In water.

Product/ingredient name	Identifiers	%	Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]	Type
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	REACH #: 01-2119489418-23 EC: 600-975-8	40 - 60	Skin Irrit. 2, H315 Eye Dam. 1, H318  See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

**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** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

**Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If

**Date of issue/Date of revision** : 06/06/2016.

2/28

**SECTION 4: First aid measures**

unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Protection of first-aiders** : 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****Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : May cause burns to mouth, throat and stomach.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**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 thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**5.3 Advice for firefighters**

- Special protective actions 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. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Wash spillages into an effluent treatment plant or proceed as follows. 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. Contaminated absorbent material may pose the same hazard as the spilled product.

**6.4 Reference to other sections**

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
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 (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. 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 original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

**7.3 Specific end use(s)**

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

No exposure limit value known.

**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.

**DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	DNEL	Long term Dermal	357000 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	124 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Oral	35,7 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	595000 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	420 mg/m <sup>3</sup>	Workers	Systemic

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	Fresh water	0,1 mg/l	Assessment Factors
	Marine	0,005 mg/l	Assessment Factors
	Fresh water sediment	0,487 mg/kg dwt	Assessment Factors
	Marine water sediment	0,048 mg/kg dwt	Assessment Factors

**8.2 Exposure controls**

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Individual protection measures**

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  
Recommended : butyl rubber, fluor rubber, nitrile rubber, PVC.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- 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** : Liquid.
- Colour** : Clear. , Yellow. [Light]
- pH** : 4 to 7
- Initial boiling point and boiling range** : 100°C
- Flash point** : Closed cup: >100°C [NFT 60 103.]
- Flammability of the product** : None available.
- Density** : 1 g/cm<sup>3</sup> to 20 °C
- Solubility** : Easily soluble in the following materials: cold water.
- Viscosity** : Dynamic: 3000 to 15000 mPa·s
- Temperature of viscosity measurement:** : 25 °C

**9.2 Other information**

The information presented in this section does not serve as specifications.

**SECTION 10: Stability and reactivity**

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- Conditions of instability** : Keep away from oxidizing agents.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SIMULSOL SL 26 C

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

Product/ingredient name	Result	Test	Dose	Exposure
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	LD50 Dermal	OCDE 402	>2000 mg/kg	-
	LD50 Oral	OCDE 401	>5000 mg/kg	-

**Irritation/Corrosion**

- Conclusion/Summary** :
- Skin** : Irritating to skin.
- Eyes** : Causes serious eye damage.

**Sensitisation**

- Conclusion/Summary** :
- Skin** : Non-sensitiser to skin.

**Mutagenicity**

Product/ingredient name	Test	Experiment	Result
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	OCDE 471	Experiment: In vitro Subject: Bacteria	Negative
	OCDE 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OCDE 473	Experiment: In vitro Subject: Mammalian-Animal	Negative

**Carcinogenicity**

- Conclusion/Summary** : Not available.

**Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Test	Dose	Exposure
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	Negative	Negative	Negative	OCDE 414	Oral: 1000 mg/kg bw/day	-

**Teratogenicity**

- Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure****Long term exposure****Potential chronic health effects****Chronic toxicity**

Product/ingredient name	Result	Test	Dose	Exposure
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	Sub-chronic NOAEL Oral	-	1000 mg/kg bw/day	90 days

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

**Date of issue/Date of revision** : 06/06/2016.

7/28

SIMULSOL SL 26 C

**SECTION 11: Toxicological information**

- Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : 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.

**Other information** : Not available.

**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Test	Species	Exposure
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	Acute EC50 5 to 38 mg/l Fresh water	-	Algae - Desmodesmus subspicatus	72 hours
	Acute LC50 7 to 14 mg/l Fresh water	OCDE 202	Crustaceans - Daphnia magna	48 hours
	Acute LC50 2,95 to 5,9 mg/l Fresh water	OCDE 203	Fish - Danio rerio	96 hours
	Chronic NOEC 1 to 4 mg/l Fresh water	OCDE 202	Crustaceans - Daphnia magna	21 days

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	OCDE 301D	88 % - Readily - 28 days	-	-

**Conclusion/Summary** : This product is readily biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	-	-	Readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
D-Glucopyranose, oligomeric, C10-16 (even numbered)-alkyl glycosides	≤-0.07	-	low

**12.4 Mobility in soil**

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

**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.

**Date of issue/Date of revision** : 06/06/2016.

8/28



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

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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

**SECTION 14: Transport information**

	<b>ADR/RID</b>	<b>ADN</b>	<b>IMDG</b>	<b>IATA</b>
<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>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.
<b>14.6 Special precautions for user</b>	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.			
<b>Additional information</b>	-	-	-	-

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Date of issue/Date of revision** : 06/06/2016.

**9/28**

SIMULSOL SL 26 C

**SECTION 15: Regulatory information**

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

**Other EU regulations**

**Europe inventory** : All components are listed or exempted.  
**EC number** : 600-975-8

**15.2 Chemical Safety Assessment** : Complete.

**SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

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

Classification	Justification
Skin Irrit. 2, H315 Eye Dam. 1, H318	Calculation method Calculation method

**Full text of abbreviated H statements** : H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
**Full text of classifications [CLP/GHS]** : Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2

**History**

**Date of printing** : 06/06/2016.  
**Date of issue/ Date of revision** : 06/06/2016.  
**Date of previous issue** : 26/05/2016.  
**Version** : 5.01

**Notice to reader**

The information contained in this document is provided as a guideline; it is based on the extent of SEPPIC's knowledge regarding the product on the date indicated above. It applies to the product as is, in conformity with the specifications provided by SEPPIC\*.

Should the product undergo chemical transformation or be combined or mixed with other substances, it is the sole responsibility of the user to ensure that no new danger appear. Given that the use of this information is beyond the control of SEPPIC\*, SEPPIC\* provides no warranty, whether express or implied, and assumes no responsibility, regarding the use of this information and of the user's product.  
 SEPPIC\* being SEPPIC SA and its subsidiaries (addresses available on [www.seppic.com](http://www.seppic.com))

## Identification of the substance or mixture

Product definition : Mixture

## Section 1 - Title

Number of the ES	: 1
For substance	: APG C10-16
Further information	: <b>Processes, tasks, activities covered: Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.</b>

**List of use descriptors** : **Identified use name:** Manufacture of substance APG C10-16; CAS: 110615-47-9  
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15  
**Sector of end use:** SU03, SU08, SU09  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC01

**Health Contributing scenarios** : **General exposures** - PROC01, PROC02, PROC03, PROC04, PROC05  
**Laboratory activities** - PROC15  
**Bulk transfers** - PROC08a, PROC08b, PROC09  
**Equipment cleaning and maintenance**  
**Storage**

## Section 2 - Exposure controls

<b>Contributing scenario : ( Environment )</b>	
<b>Amounts used</b>	: 999 Tonnes/year
<b>Frequency and duration of use</b>	: Exposure duration per year: 300 Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: Waste water pretreatment: 500 m <sup>3</sup> /d (On-site) Waste water treatment: Municipal STP River flow rate: 1.5x10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release fraction to air from process: <0.1% Release fraction to wastewater from process: <0.1% Release fraction to soil from process: 0.01% Local freshwater dilution factor 1:10
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil</b>	: Use of closed transfers of liquids from storage to production equipment (e.g. metered piped or pumped additions). Use of closed production equipment, with no extraction, except when opening vessels for additions/sampling. Use of closed filling equipment. Store finished products in closed containers (e.g., bulk tanks, drums, cans).
<b>Risk management measures - Air</b>	: In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
<b>Risk management measures - Water</b>	: Neutralisation is normally necessary before waste water is discharged into water treatment plants. (Precipitation, Sedimentation)
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. A leak prevention plan is needed to prevent low level continual releases. A storm water management plan is needed to ensure that the wastewater treatment plant is not overloaded with uncontaminated water. minimise water use and curtail all unnecessary waste water generation. Maximise waste water reuse. Good housekeeping - e.g. inspection procedures will ensure that there are no leaks to soil Bund storage facilities to prevent soil and water pollution in the event of spillage. Prevent leaks and prevent soil/water pollution caused by leaks.

**SIMULSOL SL 26 C**

<b>Conditions and measures related to municipal sewage treatment plant</b>	: All contaminated waste water must be processed in an industrial or municipal wastewater treatment plant that incorporates both primary and secondary treatments.
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed. Excluding the application of sludge to soil.

**Contributing scenario : General exposures ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: > 4 h (half shift). 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Avoid splashing. Use a sampling system designed to control exposure. Transfer via enclosed lines. Provide enhanced general ventilation by mechanical means. Fill containers/cans at dedicated fill points supplied with local extract ventilation. Wear suitable gloves tested to EN374. Use suitable eye protection.(Minima: Type EN166). Wear work clothing with long sleeves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Laboratory activities ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 15 min. - 1h, 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Avoid splashing.
<b>Ventilation control measures</b>	: General ventilation.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Use suitable eye protection.
<b>Respiratory protection</b>	: None

**Contributing scenario : Bulk transfers ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 1h - 4h, 220 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Transfer via enclosed lines.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Use suitable eye protection and gloves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Equipment cleaning and maintenance ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 4 h (half shift). 330 days

**SIMULSOL SL 26 C**

<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Drain the system before any introduction into the system. Drain and clean the system before any maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Use suitable eye protection and gloves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Storage ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 1 - 4 h (half shift). 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Use dedicated equipment. (Keep away from heat. Keep in a well-ventilated place.)
<b>Ventilation control measures</b>	: Natural ventilation.
<b>Respiratory protection</b>	: None

**Section 3 - Exposure estimation and reference to its source****Contributing scenario : -Exposure estimation and reference to its source -Workers:**

<b>Exposure assessment (human):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. (Risk characterisation ratio : Less than 1.)

**Contributing scenario : - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/ PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water: 1.11 x 10E4 kg/day Marine water: 5562 kg/day Soil: 3.15 x 10E5 kg/day Human:1.04 x 10E10 kg/day

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

<b>Environment</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. 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.
<b>Health</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

## Identification of the substance or mixture

Product definition : Mixture

## Section 1 - Title

Number of the ES	: 2
For substance	: APG C10-16
Further information	: <b>Processes, tasks, activities covered : Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.</b>

**List of use descriptors** : **Identified use name:** Distribution , Formulation APG C10-16; CAS: 110615-47-9  
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC14, PROC15  
**Sector of end use:** SU03, SU10  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC02  
**Market sector by type of chemical product:** Not applicable.

**Environmental contributing scenarios** : **Formulation of preparations - ERC02**

**Health Contributing scenarios** : **General exposures - PROC01, PROC02, PROC03, PROC04, PROC05, PROC14**  
**Laboratory activities - PROC15**  
**Bulk transfers - PROC08a, PROC08b, PROC09**  
**Equipment cleaning and maintenance**  
**Storage**

## Section 2 - Exposure controls

**Contributing scenario : Formulation of preparations ( Environment )**

<b>Amounts used</b>	: Annual site tonnage 999
<b>Frequency and duration of use</b>	: Exposure duration per year:300. Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: Waste water pretreatment: 500 m <sup>3</sup> /d (On-site) Waste water treatment: Municipal STP River flow rate:1.5 x 10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release fraction to air from process:<0.25% Release fraction to wastewater from process:<0.5% Release fraction to soil from process:0.01% Local freshwater dilution factor1:10
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil</b>	: Use of closed transfers of liquids from storage to production equipment (e.g. metered piped or pumped additions).. Use of closed production equipment, with no extraction, except when opening vessels for additions/sampling.. Use of closed filling equipment.. Store finished products in closed containers (e.g., bulk tanks, drums, cans).. Formulation activity is assumed to be a predominantly enclosed process..
<b>Risk management measures - Air</b>	: In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
<b>Risk management measures - Water</b>	: Neutralisation is normally necessary before waste water is discharged into water treatment plants. Precipitation, Sedimentation
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. A leak prevention plan is needed to prevent low level continual releases. A storm water management plan is needed to ensure that the wastewater treatment plant is not overloaded with uncontaminated water. minimise water use and curtail all unnecessary waste water generation. Maximise waste water reuse. Good housekeeping - e.g. inspection procedures will ensure that there are no leaks to soil. Bund storage facilities to prevent soil and water pollution in the event of spillage. Prevent leaks and prevent soil/water pollution caused by leaks.

**SIMULSOL SL 26 C**

<b>Conditions and measures related to municipal sewage treatment plant</b>	: All contaminated waste water must be processed in an industrial or municipal wastewater treatment plant that incorporates both primary and secondary treatments.
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed. Excluding the application of sludge to soil.

**Contributing scenario : General exposures ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: > 4 h (half shift). 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Technical conditions and measures to control dispersion from source towards the worker</b>	: Avoid splashing. Use a sampling system designed to control exposure. Transfer via enclosed lines. Provide enhanced general ventilation by mechanical means. Fill containers/cans at dedicated fill points supplied with local extract ventilation. Wear suitable gloves tested to EN374. Use suitable eye protection.(Minima: type EN166). Wear work clothing with long sleeves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Laboratory activities ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 15 min. -1h , 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Avoid splashing.
<b>Ventilation control measures</b>	: General ventilation.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Wear eye protection.
<b>Respiratory protection</b>	: None

**Contributing scenario : Bulk transfers ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 1 - 4 hours , 220 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Transfer via enclosed lines.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Wear eye protection. Wear suitable gloves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Equipment cleaning and maintenance ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: > 4 h (half shift). 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Engineering controls</b>	: Drain the system before any introduction into the system. Drain and clean the system before any maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.
<b>Personal protection</b>	: Wear work clothing with long sleeves. Wear eye protection. Wear suitable gloves.
<b>Respiratory protection</b>	: None

**Contributing scenario : Storage ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 100% (unless stated differently).
<b>Frequency and duration of use</b>	: 1 - 4 h (half shift). 330 days
<b>Other given operational conditions affecting workers exposure</b>	: Assumes use at not more than 20°C above ambient temperature, unless stated differently. Ensure good industrial hygiene. Industrial applications
<b>Ventilation control measures</b>	: Natural ventilation.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Use dedicated equipment. ( Keep away from heat. Keep in a well-ventilated place. )
<b>Respiratory protection</b>	: None

**Section 3 - Exposure estimation and reference to its source****Contributing scenario : -Exposure estimation and reference to its source -Workers:**

<b>Exposure assessment (human):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. ( Risk characterisation ratio : Less than 1. )

**Contributing scenario : Formulation of preparations - Exposure estimation and reference to its source - Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/ PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water: 2.2 x 10E4 kg/day Soil : 5.9 x 10E5 kg/day Marine water : 1.1 x 10E4 kg/day Human : 7.1 x 10E9 kg/day

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**



**Environment**

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

**Health**

: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

## Identification of the substance or mixture

Product definition : Mixture

## Section 1 - Title

Number of the ES	: 3
For substance	: APG C10-16
Further information	: <b>Processes, tasks, activities covered</b> : Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities. Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance. Use in agrochemicals

**List of use descriptors** : **Identified use name:** Industrial use APG C10-16; CAS: 110615-47-9  
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC15, PROC09, PROC10, PROC13  
**Sector of end use:** SU03  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC04, ERC05, ERC06d, ERC07  
**Market sector by type of chemical product:** PC02, PC04, PC09a, PC13, PC16, PC17, PC18, PC24, PC28, PC39

**Environmental contributing scenarios** : **Industrial use of processing aids in processes and products, not becoming part of articles**  
**Industrial use of substances in closed systems**  
**Industrial use resulting in inclusion into or onto a matrix**  
**Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers**

## Section 2 - Exposure controls

<b>Contributing scenario : Industrial use of processing aids in processes and products, not becoming part of articles ( Environment )</b>	
<b>Amounts used</b>	: Annual site tonnage 999
<b>Frequency and duration of use</b>	: Exposure duration per year:300 days. Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1,5x10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release to air from process: 0% Release fraction to wastewater from process: 100% Release fraction to soil from process: 0% Fraction of Regional tonnage used locally 0.2% Local freshwater dilution factor 1:10
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. A leak prevention plan is needed to prevent low level continual releases. A storm water management plan is needed to ensure that the wastewater treatment plant is not overloaded with uncontaminated water. minimise water use and curtail all unnecessary waste water generation. Maximise waste water reuse. Good housekeeping - e.g. inspection procedures will ensure that there are no leaks to soil Bund storage facilities to prevent soil and water pollution in the event of spillage. Prevent leaks and prevent soil/water pollution caused by leaks. Store finished products in closed containers (e.g., bulk tanks, drums, cans).

**SIMULSOL SL 26 C**

<b>Conditions and measures related to municipal sewage treatment plant</b>	: All contaminated waste water must be processed in an industrial or municipal wastewater treatment plant that incorporates both primary and secondary treatments.
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed.Excluding the application of sludge to soil.

**Contributing scenario : Industrial use of substances in closed systems ( Environment )**

<b>Amounts used</b>	: Annual site tonnage 999
<b>Frequency and duration of use</b>	: Exposure duration per year: 300 . Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1,5x10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release fraction to air from process:0% Release fraction to wastewater from process:0% Release fraction to soil from process:0% Fraction of Regional tonnage used locally0.2% Local freshwater dilution factor1:10
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. Store finished products in closed containers (e.g., bulk tanks, drums, cans).
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed.Excluding the application of sludge to soil.

**Contributing scenario : Industrial use resulting in inclusion into or onto a matrix ( Environment )**

<b>Amounts used</b>	: Annual site tonnage 999
<b>Frequency and duration of use</b>	: Exposure duration per year:300 days. Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1,5x10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release fraction to air from process:0% Release fraction to wastewater from process:5% Release fraction to soil from process:0% Fraction of Regional tonnage used locally3.67% Local freshwater dilution factor1:10
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil</b>	: Use of closed production equipment, with no extraction, except when opening vessels for additions/sampling.
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. A leak prevention plan is needed to prevent low level continual releases. A storm water management plan is needed to ensure that the wastewater treatment plant is not overloaded with uncontaminated water. minimise water use and curtail all unnecessary waste water generation. Maximise waste water reuse. Bund storage facilities to prevent soil and water pollution in the event of spillage. Prevent leaks and prevent soil/water pollution caused by leaks. Store finished products in closed containers (e.g., bulk tanks, drums, cans).
<b>Conditions and measures related to municipal sewage treatment plant</b>	: All contaminated waste water must be processed in an industrial or municipal wastewater treatment plant that incorporates both primary and secondary treatments.
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed.Excluding the application of sludge to soil.

**Contributing scenario : Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers ( Environment )**

<b>Amounts used</b>	: Annual site tonnage 999
<b>Frequency and duration of use</b>	: Exposure duration per year:300 . Covers frequency up to: daily, yearly use
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1,5x10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Release fraction to air from process:0% Release fraction to wastewater from process:0.2% Release fraction to soil from process:0% Fraction of Regional tonnage used locally:0.2% Local freshwater dilution factor:10
<b>Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil</b>	: Use of closed production equipment, with no extraction, except when opening vessels for additions/sampling.
<b>Risk management measures - Water</b>	: Neutralisation is normally necessary before waste water is discharged into water treatment plants. Precipitation , Sedimentation
<b>Organisational measures to prevent/limit release from site</b>	: Site should have a spill plan to ensure that adequate safeguards are in place to minimise the impact of episodic releases. A leak prevention plan is needed to prevent low level continual releases. A storm water management plan is needed to ensure that the wastewater treatment plant is not overloaded with uncontaminated water. minimise water use and curtail all unnecessary waste water generation. Maximise waste water reuse. Bund storage facilities to prevent soil and water pollution in the event of spillage. Prevent leaks and prevent soil/water pollution caused by leaks. Store finished products in closed containers (e.g., bulk tanks, drums, cans).
<b>Conditions and measures related to municipal sewage treatment plant</b>	: All contaminated waste water must be processed in an industrial or municipal wastewater treatment plant that incorporates both primary and secondary treatments.
<b>Conditions and measures related to external treatment of waste for disposal</b>	: Sludge should be incinerated, contained or reclaimed.Excluding the application of sludge to soil.

**Contributing scenario : ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: Covers percentage substance in the product up to 75%
<b>Frequency and duration of use</b>	: > 4 h (half shift).
<b>Other given operational conditions affecting workers exposure</b>	: Ensure good industrial hygiene. Industrial applications
<b>Ventilation control measures</b>	: Provide enhanced general ventilation by mechanical means.
<b>Personal protection</b>	: Wear suitable gloves tested to EN374. Use suitable eye protection. (Minima: Type EN166 ) Wear work clothing with long sleeves.
<b>Respiratory protection</b>	: None

**Section 3 - Exposure estimation and reference to its source****Contributing scenario : -Exposure estimation and reference to its source -Workers:**

<b>Exposure assessment (human):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. ( Risk characterisation ratio : Less than 1. )

**Contributing scenario : Industrial use of processing aids in processes and products, not becoming part of articles - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water :106.9kg/day Soil :3,9.10E6kg/day Marine water :51.7kg/day Human :1,2.10E6kg/day

**Contributing scenario : Industrial use of substances in closed systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water :106.9kg/day Soil :3,9.10E6kg/day Marine water :51.7kg/day Human :1,2.10E6kg/day

**Contributing scenario : Industrial use resulting in inclusion into or onto a matrix - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water :106.9kg/day Soil :3,9.10E6kg/day Marine water :51.7kg/day Human:1,2.10E6kg/day

**Contributing scenario : Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Fresh water :106.9kg/day Soil :3,9.10E6kg/day Marine water :51.7kg/day Human :1,2.10E6kg/day

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

<b>Environment</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. 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.
<b>Health</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

## Identification of the substance or mixture

Product definition : Mixture

## Section 1 - Title

Number of the ES	: 4
For substance	: APG C10-16
Further information	: <b>Processes, tasks, activities covered:</b> Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities. Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand). Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil. Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste. Covers the use of the substance for the treatment of water in open and closed systems.

**List of use descriptors** : **Identified use name:** Professional use, End use APG C10-16; CAS: 110615-47-9  
**Process Category:** PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC14, PROC15, PROC16, PROC17, PROC19, PROC20  
**Sector of end use:** SU21, SU22  
**Subsequent service life relevant for that use:** No.  
**Environmental Release Category:** ERC08a, ERC08b, ERC08d, ERC08e, ERC08f, ERC09a, ERC09b  
**Market sector by type of chemical product:** PC01, PC02, PC03, PC04, PC09a, PC12, PC13, PC16, PC17, PC18, PC24, PC28, PC31, PC35, PC39

**Environmental contributing scenarios** : **Wide dispersive indoor use of reactive substances in open systems**  
**Wide dispersive outdoor use of processing aids in open systems**  
**Wide dispersive outdoor use of reactive substances in open systems**  
**Wide dispersive outdoor use resulting in inclusion into or onto a matrix**  
**Wide dispersive indoor use of substances in closed systems**  
**Wide dispersive outdoor use of substances in closed systems**  
**Wide dispersive indoor use of processing aids in open systems**

**Health Contributing scenarios** : **High substance range in the preparation**  
**Medium substance range in the preparation**  
**Low substance range in the preparation**

## Section 2 - Exposure controls

**Contributing scenario : Wide dispersive indoor use of reactive substances in open systems ( Environment )**

<b>Amounts used</b>	: Amounts used : 999 Tonnes/year ( Professional use ) Amounts used : 125 Tonnes/year ( End use )
<b>Frequency and duration of use</b>	: Exposure duration per year: 365 days.
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1.5 x 10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Professional use : Release fraction to air from process: 0% Release fraction to wastewater from process: 100% Release fraction to soil from process: 0% Fraction of Regional tonnage used locally 0.08% Local freshwater dilution factor 1:10 End use : Release fraction to air from process: 0.1% Release fraction to wastewater from process: 2% Release fraction to soil from process: 0% Fraction of Regional tonnage used locally 0.2% Local freshwater dilution factor No.
<b>Organisational measures to prevent/limit release from site</b>	: minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

**Contributing scenario : Wide dispersive outdoor use of processing aids in open systems ( Environment )**

<b>Amounts used</b>	: 999 Tonnes/year (Professional use) 75 Tonnes/year (End use)
<b>Frequency and duration of use</b>	: Exposure duration per year: 365 days.
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1.5 x 10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Professional use : Release fraction to air from process: 0.5% Release fraction to wastewater from process: 5% Release fraction to soil from process: 5% Fraction of Regional tonnage used locally 0.05% Local freshwater dilution factor 1:10 End use : Release fraction to air from process: 100% Release fraction to wastewater from process: 100% Release fraction to soil from process: 20% Fraction of Regional tonnage used locally 0.02% Local freshwater dilution factor No.
<b>Organisational measures to prevent/limit release from site</b>	: minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

**Contributing scenario : Wide dispersive outdoor use of reactive substances in open systems ( Environment )**

<b>Amounts used</b>	: 999 Tonnes/year (Professional use) 125 Tonnes/year (End use)
<b>Frequency and duration of use</b>	: Exposure duration per year: 365 days.
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1.5 x 10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Professional use : Release fraction to air from process: 0.1% Release fraction to wastewater from process: 2% Release fraction to soil from process: 1% Fraction of Regional tonnage used locally 0.05% Local freshwater dilution factor 1:10 End use : Release fraction to air from process: 0.1% Release fraction to wastewater from process: 2% Release fraction to soil from process: 1%

Fraction of Regional tonnage used locally 0.2%  
Local freshwater dilution factor No.

**Organisational measures to prevent/limit release from site** : minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

**Contributing scenario : Wide dispersive outdoor use resulting in inclusion into or onto a matrix ( Environment )**

**Amounts used** : Amounts used : 999 Tonnes/year (Professional use)

**Frequency and duration of use** : Exposure duration per year: 365 days.

**Environment factors not influenced by risk management** : River flow rate: 1.5 x 10E6 m<sup>3</sup>/d

**Other given operational conditions affecting environmental exposure** : Professional use :  
Release fraction to air from process: 1%  
Release fraction to wastewater from process: 99%  
Release fraction to soil from process: 0%  
Fraction of Regional tonnage used locally 1.46%  
Local freshwater dilution factor 1:10

**Organisational measures to prevent/limit release from site** : minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

**Contributing scenario : Wide dispersive indoor use of substances in closed systems ( Environment )**

**Amounts used** : 999 Tonnes/year (Professional use)  
125 Tonnes/year (End use)

**Frequency and duration of use** : Exposure duration per year: 365 days.

**Environment factors not influenced by risk management** : River flow rate: 1.5 x 10E6 m<sup>3</sup>/d

**Other given operational conditions affecting environmental exposure** : Professional use :  
Release fraction to air from process: 5%  
Release fraction to wastewater from process: 2.5%  
Release fraction to soil from process: 2.5%  
Fraction of Regional tonnage used locally 0.05%  
Local freshwater dilution factor 1:10  
End use :  
Release fraction to air from process: 5%  
Release fraction to wastewater from process: 0%  
Release fraction to soil from process: 0%  
Fraction of Regional tonnage used locally 0.2%  
Local freshwater dilution factor No.

**Organisational measures to prevent/limit release from site** : minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

**Contributing scenario : Wide dispersive outdoor use of substances in closed systems ( Environment )**

**Amounts used** : 999 Tonnes/year (Professional use)  
125 Tonnes/year (End use)

**Frequency and duration of use** : Exposure duration per year: 365 days.

**Environment factors not influenced by risk management** : River flow rate: 1.5 x 10E6 m<sup>3</sup>/d

**Other given operational conditions affecting environmental exposure** : Professional use :  
Release fraction to air from process: 1%  
Release fraction to wastewater from process: 1%  
Release fraction to soil from process: 1%  
Fraction of Regional tonnage used locally 0.05%  
Local freshwater dilution factor 1:10  
End use :  
Release fraction to air from process: 0.1%  
Release fraction to wastewater from process: 2%  
Release fraction to soil from process: 0%  
Fraction of Regional tonnage used locally 0.2%



	Local freshwater dilution factor No.
<b>Organisational measures to prevent/limit release from site</b>	: minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..
<b>Contributing scenario : Wide dispersive indoor use of processing aids in open systems ( Environment )</b>	
<b>Amounts used</b>	: Amounts used : 999 Tonnes/year ( Professional use ) Amounts used : 75 Tonnes/year ( End use )
<b>Frequency and duration of use</b>	: Exposure duration per year: 365 days.
<b>Environment factors not influenced by risk management</b>	: River flow rate: 1.5 x 10E6 m <sup>3</sup> /d
<b>Other given operational conditions affecting environmental exposure</b>	: Professional use : Release fraction to air from process: 0% Release fraction to wastewater from process: 100% Release fraction to soil from process: 0% Fraction of Regional tonnage used locally 0.08% Local freshwater dilution factor 1:10 End use : Release fraction to air from process: 0% Release fraction to wastewater from process: 100% Release fraction to soil from process:100% Fraction of Regional tonnage used locally 0.2% Local freshwater dilution factor No.
<b>Organisational measures to prevent/limit release from site</b>	: minimise water use and curtail all unnecessary waste water generation. Store finished products in closed containers (e.g., bulk tanks, drums, cans)..

<b>Contributing scenario : High substance range in the preparation ( Workers: )</b>	
<b>Concentration of substance in mixture or article</b>	: >75%
<b>Frequency and duration of use</b>	: >4 h (half shift). Exposure duration per year: 220 days
<b>Human factors not influenced by risk management</b>	: Skin contact : hands
<b>Other given operational conditions affecting workers exposure</b>	: Outdoor (>20m <sup>3</sup> ) The saturated vapour concentration is far below the DNEL. Hence, the risk is considered negligible via the inhalation route. (SVC=[VP/((8.31 x 293)/MW) at 20°C]= 1.79 mg/m <sup>3</sup> ) Good hygiene practices and housekeeping measures. Unless otherwise stated below, wear standard working clothes and shoes. Regular training in workplace hygiene practice and proper use of personal protective equipment are required.
<b>Personal protection</b>	: Gloves. Eye protection equipment (i.e. goggles or visors) must be worn, unless potential contact with eye can be excluded by the nature and type of application (e.g. closed process).
<b>Respiratory protection</b>	: None

<b>Contributing scenario : Medium substance range in the preparation ( Workers: )</b>	
<b>Concentration of substance in mixture or article</b>	: 1 - 75%
<b>Frequency and duration of use</b>	: > 4 h (half shift). Exposure duration per year:365
<b>Human factors not influenced by risk management</b>	: Skin contact : Whole body

**SIMULSOL SL 26 C**

<b>Other given operational conditions affecting workers exposure</b>	: Outdoor (>20m3 ) The saturated vapour concentration is far below the DNEL. Hence, the risk is considered negligible via the inhalation route. (SVC=[VP/((8.31 x 293)/MW) at 20°C]= 1.79 mg/m3) Good hygiene practices and housekeeping measures Unless otherwise stated below, wear standard working clothes and shoes. Regular training in workplace hygiene practice and proper use of personal protective equipment are required.
<b>Organisational measures to prevent/limit releases, dispersion and exposure</b>	: Ensure operatives are trained to minimise exposures.
<b>Personal protection</b>	: Gloves. Eye protection equipment (i.e. goggles or visors) must be worn, unless potential contact with eye can be excluded by the nature and type of application (e.g. closed process).
<b>Respiratory protection</b>	: None

**Contributing scenario : Low substance range in the preparation ( Workers: )**

<b>Concentration of substance in mixture or article</b>	: <1%
<b>Frequency and duration of use</b>	: > 4 h (half shift). Exposure duration per year: 365 days.
<b>Human factors not influenced by risk management</b>	: Skin contact : Whole body
<b>Other given operational conditions affecting workers exposure</b>	: Outdoor (>20m3 ) Ensure good industrial hygiene. The saturated vapour concentration is far below the DNEL. Hence, the risk is considered negligible via the inhalation route. (SVC=[VP/((8.31 x 293)/MW) at 20°C]= 1.79 mg/m3) The secondary exposure is far lower than the DNEL. Hence, the risk is considered negligible (Oral, Dermal)
<b>Technical conditions and measures at process level (source) to prevent release</b>	: No specific measures identified.
<b>Respiratory protection</b>	: None

**Section 3 - Exposure estimation and reference to its source****Contributing scenario : -Exposure estimation and reference to its source -Workers:**

<b>Exposure assessment (human):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. ( Risk characterisation ratio : Less than 1. )

**Contributing scenario : Wide dispersive indoor use of reactive substances in open systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/ PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 91 kg/day Soil : 1321 kg/day Marine water : 44 kg/day Human: 1.1 x 10E6kg/day End use : Fresh water : 94 kg/day Soil : 7598 kg/day Marine water : 46.6 kg/day Human : 3.6 x 10E6 kg/day

**Contributing scenario : Wide dispersive outdoor use of processing aids in open systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 278 kg/day Soil : 1482 kg/day Marine water : 120.4kg/day Human : 7.3 x 10E5kg/day End use : Fresh water : 2 kg/day Soil : 4559 kg/day Marine water : 1 kg/day Human : 2.2 x 10E6kg/day

**Contributing scenario : Wide dispersive outdoor use of reactive substances in open systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 300 kg/day Soil : 1503 kg/day Marine water : 128.7 kg/day Human : 7.3 x 10E5 kg/day End use : Fresh water : 94.1 kg/day Soil : 7598 kg/day Marine water : 46.6 kg/day Human : 3.6 x 10E6kg/day

**Contributing scenario : Wide dispersive outdoor use resulting in inclusion into or onto a matrix - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 112.2 kg/day Soil: 2966 kg/day Marine water : 56 kg/day Human : 2.1 x 10E7 kg/day

**Contributing scenario : Wide dispersive indoor use of substances in closed systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 296.3 kg/day Soil : 1500 kg/day Marine water : 127.2 kg/day Human : 7.3 x 10E5 kg/day End use : Fresh water : 1587kg/day Soil : 7598 kg/day Marine water : 675 kg/day Human : 3.6 x 10E6kg/day

**Contributing scenario : Wide dispersive outdoor use of substances in closed systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 308.5 kg/day Soil : 1511 kg/day Marine water : 131.7 kg/day Human : 7.3 x 10E5 kg/day End use : Fresh water : 94.1 kg/day Soil : 7598 kg/day Marine water : 46.6kg/day Human : 3.6 x 10E6 kg/day

**Contributing scenario : Wide dispersive indoor use of processing aids in open systems - Exposure estimation and reference to its source -Environment:**

<b>Exposure assessment (environment):</b>	: A tier approach is used under Easy-TRA for the RCR calculation. All the use descriptors enumerated above results in safe uses.
<b>Exposure estimation</b>	: Exposures are low and do not exceed limit values. Risk characterisation ratio (PEC/PNEC): Less than 1.
<b>M-Safe</b>	: Professional use : Fresh water : 91 kg/day Soil : 1321 kg/day Marine water : 44 kg/day Human : 1.1 x 10E6 End use : Fresh water : 2 kg/day Soil :4559 kg/day Marine water : 1 kg/day Human : 2.2 x 10E6 kg/day

**Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

<b>Environment</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. 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.
<b>Health</b>	: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.