

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**1. Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

Trade name : Glycol Ether PM SOLVENT  
Synonyms : Propylene glycol monomethyl ether  
Substance name : 1-Methoxy-2-propanol  
Substance No. : 203-539-1 (EINECS)  
Chemical characterization : Propylene Glycol Ethers

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

Identified uses : Manufacture of substances; Use as intermediate; Formulation & (re)packing of substance and mixtures; Uses in Coatings; Use in Cleaning Agents; Agrochemical uses; Use as binders and release agents; De-icing and anti-icing applications; Use in cosmetics (environment)

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

| <b>Company</b>  | <b>Registration number</b> | <b>Telephone</b>    |
|---|----------------------------|---------------------|
| Lyondell Chemie Nederland, B.V.<br>Delftseplein 27E<br>3013 AA Rotterdam<br>Netherlands | 01-2119457435-35-0001      | 31 (0) 10 275 55 00 |

E-mail address : product.safety@lyb.com  
Responsible/issuing person

**1.4 Emergency telephone number**

Lyondell Chemie Nederland, B.V. +32 3 575 1235

**Poison Center:**

National Poisons Information Center (NVIC)  
NL: +31 30 274 8888  
Only intended to inform medical doctors upon accidental poisoning.

**2. Hazards identification**

**2.1 Classification of the substance or mixture**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Classification (REGULATION (EC) No 1272/2008)**

Flammable liquids  
Specific target organ toxicity - single exposure

Category 3: H226  
Category 3: H336

**2.2 Label elements**

**Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Warning

Hazard Statements : H226 Flammable liquid and vapour.  
H336 May cause drowsiness or dizziness.

Precautionary Statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
**Response:**  
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Storage:**  
P403 + P235 Store in a well-ventilated place. Keep cool.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**2.3 Other hazards**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).  
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

2-Methoxy-1-propanol at < 0.3% is not present in sufficient quantity to give rise to classification of this material as toxic to reproduction.

**3. Composition/information on ingredients**

**3.1 Substances**

Chemical nature : Substance

**Components**

| Chemical name                        | CAS-No.<br>EINECS-No. / ELINCS<br>No./EC-No. | Weight %  | Component<br>Type |
|--------------------------------------|--|-----------|-------------------|
| monopropylene glycol<br>methyl ether | 107-98-2<br>203-539-1                        | >= 99.5 % | A                 |
| 2-methoxypropanol                    | 1589-47-5<br>216-455-5                       | <0.3 %    | C                 |

Key:  
(A) Substance  
(C) Impurity

**4. First aid measures**

**4.1 Description of first-aid measures**

- General advice : Inhalation of high vapor concentrations can cause CNS-depression and narcosis.  
Consult a physician/doctor if necessary.  
Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.  
Show this material safety data sheet to the doctor in attendance.
- If inhaled : If symptoms are experienced, move victim to fresh air.  
Give oxygen or artificial respiration as needed.  
Get immediate medical advice/ attention.
- In case of skin contact : Thoroughly wash effected area with mild soap and water. If irritation persist, seek medical attention.
- In case of eye contact : Thoroughly flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

attention.

If swallowed : This material may be a slight health hazard if ingested in large quantities.  
If large quantity swallowed, give lukewarm water (pint/ 1/2 liter) if victim completely conscious/alert.  
Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk.  
Obtain emergency medical attention.

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

Symptoms : Inhalation may cause CNS symptoms like headache, dizziness, fatigue, muscular, weakness, drowsiness and lack of coordination.

Hazards : May be harmful if swallowed and enters airways.  
May be harmful if swallowed.  
May cause drowsiness or dizziness.

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

Treatment : Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

**5. Fire-fighting measures**

**5.1 Extinguishing media**

Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO2)  
Water spray  
Alcohol-resistant foam

Unsuitable extinguishing media : Do not use solid water stream.

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

Specific hazards during fire fighting : Water may be ineffective in firefighting due to low flash point.  
Burning liquid may float on water.  
Even if material is water soluble, may not be practical to extinguish fire by water dilution.  
Notify authorities immediately if liquid enters sewer/public waters.  
Flammable vapors may be heavier than air and travel long

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

distances along the ground before igniting and flashing back to vapor source.  
Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries.  
Move containers from fire area if it can be done without risk.  
Cool containers with flooding quantities of water until well after fire is out.  
Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.  
Always stay away from tanks engulfed in fire.  
For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**5.3 Advice for firefighters**

Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing apparatus and firefighter turnout gear.  
Structural firefighter's protective clothing will only provide limited protection.

**6. Accidental release measures**

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

Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.  
Eliminate all sources of ignition.  
Evacuate personnel to safe areas.

**6.2 Environmental precautions**

Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.  
If necessary, all contaminated waste water must be treated in a municipal or industrial wastewater treatment plant before release to surface water.

Chemical removal by air and water pollution control devices must meet the minimum efficiency requirements needed to reduce exposures to an acceptable level.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

The discharge of treatment plant effluent to rivers and oceans must achieve the dilution ratio needed to reduce exposures to an acceptable level.

The size and capacity of wastewater treatment plants must meet the minimum requirements needed to reduce exposures to an acceptable level.

Waste management practices such as incineration, recycling, reuse must be enforced as needed to reduce exposures to an acceptable level.

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

The maximum allowable site tonnage and the days of use should be below the number needed to maintain exposures at an acceptable level.

**6.3 Methods and materials for containment and cleaning up**

Methods for containment /  
Methods for cleaning up

: Flammable liquid and vapour.  
Release can cause fire or explosion.  
Liquids/vapors may ignite.  
Eliminate all sources of ignition.  
Evacuate/limit access.  
Ensure adequate ventilation.  
Stop leak if you can do it without risk.  
All equipment used when handling this product must be grounded.  
Do not touch or walk through spilled material.  
Water spray may reduce vapor; but may not prevent ignition in closed spaces.  
Blanket with firefighting foam.  
Contain spill with dike to prevent entry into sewers or waterways.  
For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spills, soak up with absorbent material and place in properly labeled containers for disposal.  
All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**7. Handling and storage**

**7.1 Precautions for safe handling**

Advice on safe handling : Carefully vent any internal pressure before removing closure. Keep container tightly closed when not in use. The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation. Use only non-sparking tools. Properly ground containers before beginning transfer. When transferring propylene glycol ethers with flash points at or below 60 °C (140 °F) into fixed site vessels, the vessel should be purged and inerted prior to transfer. Propylene glycol ethers may be transferred into air atmospheres if the temperature of the product and the ambient temperature within the shipping container are both at least 16.7 °C (30 °F) less than the product's flash point. After loading, nitrogen blanketing is required if the contents of the transportation container could exceed a temperature of 16.7 °C (30 °F) less than the product flash point during any subsequent transportation activities. If the product flash point is less than 16.7 °C (30 °F) above either the ambient temperature of the transportation container or the storage temperature of the product, the container should be purged and inerted with nitrogen prior to loading and nitrogen blanketed after loading. Eliminate every possible source of ignition. All electrical equipment should be grounded and conform to applicable electric codes and regulatory requirements. Check atmosphere for explosiveness and oxygen deficiencies. When transferring, the vessel should be purged and inerted prior to transfer.

Handle empty containers with care. Flammable/combustible residue remains after emptying. The purging of all empty shipping containers, regardless of the flashpoint, is recommended when received with air atmospheres. Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Use adequate personal protective equipment. Observe precautions pertaining to confined space entry. After handling, always wash hands thoroughly with soap and water.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

Fire-fighting class : Flammable liquid and vapour.

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

Requirements for storage areas and containers : Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Storage under nitrogen atmosphere is recommended to minimize potential for moisture condensation in the vapor space, and the formation of peroxides. Carbon steel is satisfactory material of construction. Store in properly lined steel/stainless steel to avoid slight discoloration from mild steel/copper. Some plastics/rubbers are attacked by Glycol Ethers/Ether Esters. This product will absorb water if exposed to air. Vapor space above stored liquid may be flammable/explosive unless blanketed with inert gas. Keep in properly labeled containers.

Advice on common storage : Carbon steel Store in properly lined steel/stainless steel to avoid slight discoloration from mild steel/copper.

**7.3 Specific end use(s)**

: See Section 1.2.

**8. Exposure controls/personal protection**

**8.1 Control parameters**

**Ingredients with workplace control parameters**

**Occupational Exposure Limits**

| Components                        | CAS-No.  | Type | Limit Value | Basis Revision Date | Additional Information |
|-----------------------------------|----------|------|-------------|---------------------|------------------------|
| monopropylene glycol methyl ether | 107-98-2 | STEL | 100 ppm     | US (ACGIH) 2013     |                        |



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

|                                   |          |      |                      |   |  |
|-----------------------------------|----------|------|----------------------|---|--|
| monopropylene glycol methyl ether | 107-98-2 | TWA  | 50 ppm               | US (ACGIH) 2013                           |  |
| monopropylene glycol methyl ether | 107-98-2 | STEL | 150 ppm<br>568 mg/m3 | 2000/39/EC (EU)<br>)<br>December 17, 2009 |  |
| monopropylene glycol methyl ether | 107-98-2 | TWA  | 100 ppm<br>375 mg/m3 | 2000/39/EC (EU)<br>)<br>December 17, 2009 |  |
| monopropylene glycol methyl ether | 107-98-2 | STEL | 563 mg/m3            | OEL (NL)<br>October 1, 2010               |  |
| monopropylene glycol methyl ether | 107-98-2 | TWA  | 375 mg/m3            | OEL (NL)<br>October 1, 2010               |  |

Consult local authorities for acceptable exposure limits.

- DN(M)EL : End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Acute effects  
 Value: 553.5 mg/m3  
 Local effects
- DN(M)EL : End Use: Workers  
 Exposure routes: Skin contact  
 Potential health effects: Long term  
 Value: 50.6 mg/kg bw/day  
 Systemic effects
- DN(M)EL : End Use: Workers  
 Exposure routes: Inhalation  
 Potential health effects: Long term  
 Value: 369 mg/m3  
 Systemic effects
- DN(M)EL : End Use: General Population  
 Exposure routes: Skin contact  
 Potential health effects: Long term  
 Value: 18.1 mg/kg bw/day  
 Systemic effects

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

- DN(M)EL : End Use: General Population  
Exposure routes: Inhalation  
Potential health effects: Long term  
Value: 43.9 mg/m<sup>3</sup>  
Systemic effects
- DN(M)EL : End Use: General Population  
Exposure routes: Ingestion  
Potential health effects: Long term  
Value: 3.3 mg/kg bw/day  
Systemic effects
- PNEC : Fresh water  
Value: 10 mg/l  
Assessment factor -100
- PNEC : Sea water  
Value: 1 mg/l  
Assessment factor -1000
- PNEC : Water  
Value: 100 mg/l  
Intermittent Releases, Assessment factor -10
- PNEC : Fresh water sediment  
Value: 41.6 mg/kg
- PNEC : Sea sediment  
Value: 4.17 mg/kg
- PNEC : Soil  
Value: 2.47 mg/kg
- PNEC : Sewage Treatment Plant  
Value: 100 mg/l  
Assessment factor -10

**8.2 Exposure controls**

**Engineering measures**

General room or local exhaust ventilation is usually required to meet exposure limit(s).

**Personal protective equipment**

Respiratory protection : Wear a respirator conforming to EN 140 with type A filter or better.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Consider the maximum period for wear.

Hand protection : Wear chemical resistant gloves such as:  
Glove material butyl rubber; material thickness .5mm; break through time  $\geq$  480 min. Gloves must be replaced after 8 hours of wear.

Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

: The selected protective gloves have to satisfy the standard EN 374 derived from it.

Eye and face protection : Chemical splash goggles and/or face shield should be worn. The selected goggles or glasses must satisfy the European norm standard EN 166.

Skin and body protection : Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The selected protective clothing has to satisfy the standard EN 13034, which describes clothing offering limited 8 hour protection against splashes. Use PPE that is chemical resistant to the product and prevents skin contact.

Hygiene measures : Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse.

**Environmental exposure controls**

General advice : See section 6.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

|                              |                                       |
|------------------------------|---------------------------------------|
| Appearance                   | : liquid                              |
| Odor                         | : Ether-like odor.                    |
| Flash point                  | : 31 °C<br>Method: (SETA)             |
| Lower explosion limit        | : 1.48 vol%                           |
| Upper explosion limit        | : 13.74 vol%                          |
| Flammability (solid, gas)    | : Not applicable                      |
| Oxidizing properties         | : Not considered an oxidizing agent.  |
| Autoignition temperature     | : 287 °C<br>at 1,013 hPa              |
| Molecular weight             | : 90.12 g/mol                         |
| Decomposition temperature    | : not determined                      |
| pH                           | : 7<br>aqueous phase                  |
| Melting point/freezing point | : -96 °C<br>at 1,013 hPa              |
| Boiling point/boiling range  | : 120.17 °C<br>at 1,013 hPa           |
| Vapor pressure               | : 15.6 hPa<br>at 25 °C                |
| Density                      | : 0.916 g/cm <sup>3</sup><br>at 25 °C |
| Relative density             | : ~ 0.92                              |
| Water solubility             | : completely miscible                 |
| Partition coefficient: n-    | : log Pow: 0.37                       |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

octanol/water at 20 °C

Viscosity, dynamic : 1.7 mPa.s  
at 25 °C

Viscosity, kinematic : ~ 2.0 mm<sup>2</sup>/s  
at 20 °C

Relative vapor density : > 3.0  
at 15.5 - 32.2 °C

Surface tension : 70.7 mN/m  
1.0 g/l  
at 20 °C

Explosive properties : Not explosive

**9.2 Other information**

Other information : Volatile Characteristics:  
: Moderate: 1.0 to 10.0%

**10. Stability and reactivity**

**10.1 Reactivity**

None reasonably foreseeable.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : Will not occur.

**10.4 Conditions to avoid**

Conditions to avoid : Extended contact with air or oxygen.  
The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation.  
Reacts with air or water to form peroxides.  
Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Ignition may occur at temperatures below those published in the literature as autoignition or ignition temperatures.

**10.5 Incompatible materials**

Materials to avoid : Strong oxidizing agents.  
Air or Oxygen  
Moisture and humidity.

**10.6 Hazardous decomposition products**

Hazardous decomposition products : Not expected to decompose under normal conditions.  
Thermal decomposition : Note: Incomplete combustion may produce carbon monoxide and other toxic gases.

**11. Toxicological information**

**11.1 Information on toxicological effects**

**Product Summary** : The below given information is based on the assessment of the product including impurities.

**Acute toxicity**

**Acute oral toxicity**

: Based on acute toxicity values, not classified.  
May be harmful if swallowed.  
: LD50: 4,016 mg/kg  
Species: Rat  
:  
: High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure).

**Acute inhalation toxicity**

: Based on acute toxicity values, not classified.  
: LC50: 25.8 mg/l  
Exposure time: 6 HOURS  
Species: Rat  
:  
: Exposure to vapor may cause irritation of the eyes, nose, or

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

throat.  
Exposure to very high concentrations of aerosols may cause  
CNS depression.

**Acute dermal toxicity** : Based on acute toxicity values, not classified.

: LD50: > 2,000 mg/kg  
Species: Rabbit

**Skin corrosion/irritation** : Based on skin irritation values, not classified.  
Contact may cause mild skin irritation.

**Serious eye damage/eye irritation** : Based on eye irritation values, not classified.  
May cause slight transient eye irritation.

**Respiratory or skin sensitization** : Respiratory sensitization  
Not classified  
No study available.  
: Skin sensitization  
Not classified  
No adverse effect observed.

**Chronic toxicity**

Carcinogenicity : Not classified  
No adverse effect observed.

Germ cell mutagenicity : Not classified  
No adverse effect observed.

**Reproductive toxicity**

Effects on fertility / : Not classified  
Effects on or via lactation 2-Methoxy-1-propanol at < 0.3% is not present in sufficient  
quantity to give rise to classification of this material as toxic to

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

reproduction.

Effects on Development : Not classified  
No adverse effect observed.

**Target Organ Systemic Toxicant - Single exposure**

: Classified, May cause drowsiness or dizziness.  
: High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure).

**Target Organ Systemic Toxicant - Repeated exposure**

: Based on repeated exposure toxicity values, not classified.

**Aspiration hazard**

: Not classified  
May be harmful if swallowed and enters airways.

**12. Ecological information**

**12.1 Ecotoxicology Assessment**

**Short-term (acute) aquatic hazard** : Based on acute aquatic toxicity values, not classified.

**Long-term (chronic) aquatic hazard** : Not classified, based on readily biodegradability and low acute toxicity.

**Toxicity to fish** : Low acute toxicity to fish

**Toxicity to daphnia and other aquatic invertebrates** : Low acute toxicity to aquatic invertebrates.

**Toxicity to algae** : Low toxicity to algae.

**Toxicity to bacteria** : Low toxicity to sewage microbes.



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Toxicity to fish (Chronic toxicity)** : no data available

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)** : no data available

**12.2 Persistence and degradability**

**Biodegradability** : Biodegradation: ~ 96 %  
Rapidly degradable.  
(After 28 days in a ready biodegradability test)

**12.3 Bioaccumulative potential**

**Bioaccumulation** : Bioconcentration factor (BCF): 3.16  
This material is not expected to bioaccumulate.

**12.4 Mobility in soil**

**Distribution among environmental compartments** : Type: Stability in water  
no data available  
: Type: Stability in soil  
no data available  
Low absorption to soil particulates predicted

**12.5 Results of PBT and vPvB assessment**

**Result** : This substance is not considered to be persistent, bioaccumulating and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**12.6 Other adverse effects**

**Environmental fate and pathways** : No additional information available.

**12.7 Other information**

**Additional ecological** : No additional information available.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**information**

**13. Disposal considerations**

**13.1 Waste treatment methods**

Product : The product should not be allowed to enter drains, water courses or the soil.  
Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes.  
Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal.

**14. Transport information**

**ADR**

UN number : 3092  
UN proper shipping name : 1-METHOXY-2-PROPANOL  
Transport hazard class(es) : 3  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Tunnel restriction code : D/E  
Environmentally hazardous : no

**ADN**

UN number : 3092  
UN proper shipping name : 1-Methoxy-2-propanol  
Transport hazard class(es) : 3  
Packing group : III  
Classification Code : F1  
Labels : 3  
Environmentally hazardous : no

**IMDG**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

UN number : 3092  
Description of the goods : 1-METHOXY-2-PROPANOL  
Class : 3  
Packing group : III  
Labels : 3  
EmS Number 1 : F-E  
EmS Number 2 : S-D

Marine pollutant : no

**RID**

UN number : 3092  
Description of the goods : 1-METHOXY-2-PROPANOL  
Transport hazard class(es) : 3  
Packing group : III  
Classification Code : F1  
Hazard Identification Number : 30  
Labels : 3  
Environmentally hazardous : no

**BLG (MARPOL Annex II)**

Description of the goods : PROPYLENE GLYCOL MONOALKYL ETHER (CONTAINS PROPYLENE GLYCOL MONOMETHYL ETHER),  
Pollution category : Z  
Ship type : 3

**IATA**

: Not Supported  
: If transportation information is required, please contact  
Logistics Compliance at: dangerousgoods@lyb.com

**15. Regulatory information**

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

**REACH Annex XIV**

None of the substances currently listed in Annex XIV of the REACH regulation 1907/2006/EC or in the SVHC Candidate List are known to be incorporated in this product in quantities  $\geq 0.1$  % w/w.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

**REACH Annex XVII**

This product contains an ingredient listed in Annex XVII of the REACH Regulation 1907/2006/EC.

| Component            | CASRN     | Remarks                      |
|----------------------|-----------|------------------------------|
| 2-Methoxy-1-propanol | 1589-47-5 | Use restricted. See item 30. |

**REACH - Candidate List of Substances of Very High Concern for Authorisation**

This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).

**Netherlands - Total List of Substances of Very High Concern**

The following substance(s) is/are on the list of Substances of Very High Concern:

| Component            | CASRN     | Remarks |
|----------------------|-----------|---------|
| 2-Methoxy-1-propanol | 1589-47-5 | Present |

**REACH status**

If the product has been purchased from any company of the LyondellBasell group of companies registered in the European Union, we confirm that the chemical substance in this product has been registered under REACH, in accordance with the deadlines set forth in REACH. (Regulation (EU) No. 1907/2006)

**Other international regulations**

**Global Inventory Status**

The ingredients of this product are compliant with the following chemical inventory requirements or exemptions.

\*Additional Explanatory Status Statements follow the table, as necessary.

| Country/Region | Inventory | Status Description             |
|----------------|-----------|--------------------------------|
| Australia      | AICS      | Compliant                      |
| Canada         | DSL       | Compliant                      |
| China          | IECSC     | Compliant                      |
| Europe         | REACH     | See REACH Compliance Statement |
| Japan          | ENCS      | Compliant                      |
| Korea          | KECI      | Compliant                      |
| New Zealand    | NZIoC     | Compliant                      |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

|                          |       |           |
|--------------------------|-------|-----------|
| Philippines              | PICCS | Compliant |
| United States of America | TSCA  | Compliant |
| Taiwan                   | TCSCA | Compliant |

Contact product.safety@lyb.com for additional global inventory information.

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has been carried out for this substance.

**16. OTHER INFORMATION**

**Material safety datasheet sections which have been updated:**

Revised Section(s): 15 16

**Full text of H-Statements referred to under sections 2 and 3.**

H226                      Flammable liquid and vapour.  
H336                      May cause drowsiness or dizziness.

**Abbreviations and Acronyms**

- ACGIH - American Conference of Governmental Industrial Hygienists
- ACGIH\_BEIs - American Conference of Governmental Industrial Hygienists\_Biological Exposure Indices
- ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
- AICS - Australian Inventory of Chemical Substances
- ASTM - American Society for Testing and Materials
- BEL - Biological Exposure Limits
- BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
- CAS - Chemical Abstracts Service
- CEFIC - European Chemical Industry Council
- CLP - Classification Packaging and Labelling
- COC - Cleveland Open-Cup
- CS - Consumer Scenario
- DIN - Deutsches Institut für Normung
- DN(M)EL - Derived No (Minimal) Effect Level
- DSL - Canada Domestic Substance List
- EC - European Commission
- EC50 - Median Effective Concentration
- ECETOC - European Center on Ecotoxicology and Toxicology of Chemicals

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Glycol Ether PM SOLVENT

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

ECHA - European Chemicals Agency  
EL50 - Effective Loading fifty  
ELINCS - EHR-Lab Interoperability and Connectivity Specification  
ENCS - Japanese Existing and New Chemical Substances Inventory  
ERC - Environmental Release Category  
EUSES - European Union System for the Evaluation of Substances  
EWC - European Waste Code  
GHS - Globally Harmonized System of Classification and Labelling of Ch  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IC50 - Inhibitory Concentration fifty IL50 = Inhibitory Level fifty  
IMDG - International Maritime Dangerous Goods  
IECSC - Chinese Chemicals Inventory  
IOELV - Indicative Occupational Exposure Limit Values  
IP346 - Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables  
KECI - Korea Existing Chemicals Inventory  
Koc - Organic Carbon/Water Partition Coefficient  
LC50 - Lethal Concentration fifty  
LD50 - Lethal Dose fifty per cent.  
LL/EL/IL - Lethal Loading/Effective Loading/Inhibitory Loading  
LL50 - Lethal Loading fifty  
MAK Commission - Permanent Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area  
MARPOL - International Convention for the Prevention of Pollution from Ships  
No. - Number  
NOEC/NOEL - No Observed Effect Concentration / No Observed Effect Level  
NZIoC - New Zealand Inventory of Chemicals  
OE\_HP - Occupational Exposure - High Production Volume  
OECD - Organization for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
PBT - Persistent, Bio accumulative and Toxic  
PICCS - Philippine Inventory of Chemicals and Chemical Substances  
PNEC - Predicted No Effect Concentration  
PPE - Personal Protective Equipment  
PROC - Process Category  
QSAR - Quantitative Structure-Activity Relationship  
REACH - Registration Evaluation and Authorization of Chemicals  
RID - Regulations Relating to International Carriage of Dangerous Goods by Rail  
SDS - Safety Data Sheet  
SKIN\_DES - Skin Designation  
STEL - Short term exposure limit  
STP - Standard Temperature and Pressure  
TCSCA - Taiwan inventory of chemicals  
TGD - Technical Guidance Document  
TRA - Targeted Risk Assessment

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

TSCA - US Toxic Substances Control Act  
TWA - Time-Weighted Average  
UN - United Nations  
vPvB - very Persistent and very Bioaccumulative  
WGK - German Water Endangerment Class

---

**Disclaimer**

Multiple legal entities and registration numbers may be displayed in Section 1. The Recipient shall refer to the shipping documents to identify the legal entity that supplied this product.

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative or visit the LyondellBasell website at: <https://www.lyondellbasell.com/en/products-technology/product-safety-stewardship/>  
The Trade Name referenced in section 1 is a trademark owned or used by the LyondellBasell family of companies.

Numerical Data Presentation

The presentation of numerical data, such as that used for physical and chemical properties and toxicological values, is expressed using a comma (,) to separate digits into groups of three and a period (.) as the decimal marker. For example, 1,234.56 mg/kg = 1 234,56 mg/kg.

Language Translations

The information presented in this document has been translated from English by a vendor LyondellBasell believes to be reliable. LyondellBasell and its vendor have made a good-faith effort to verify the accuracy of the translation, but assume no liability or other responsibility for any errors that may have occurred. Please refer to our web site ([www.lyondellbasell.com](http://www.lyondellbasell.com)) for the original document written in English.

**End of Material Safety Data Sheet**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Section 1: Title of Exposure Scenario**

**Short title**            Manufacture of substances

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Process category:**

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC15: Use as laboratory reagent

**Environmental release category:**

ERC1: Manufacture of substances

**Processes, tasks activities covered**

Manufacture of substance or use as process chemical or extraction agent.

Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)**            Medium volatile liquid

**Water solubility**                            Complete.

**Biodegradability**                            Readily biodegradable



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Amount used**

|  |                    |
|--|--------------------|
| Annual site tonnage (tonnes/year)            | 200000 ton(s)/year |
| Daily site tonnage Msperc (kg/day)           | 400000 KG          |
| Fraction of EU tonnage used in region        | 1                  |
| Fraction of main source to local environment | 0.6                |
| Fraction of substance in end-use products    | 1                  |

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

|                                 |     |
|---------------------------------|-----|
| Dilution Factor (River)         | 10  |
| Dilution Factor (Coastal Areas) | 100 |

Remarks Manufacturing is made in a closed process.

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Use bunds or dikes around storage facilities to prevent soil and water pollution in the event of a spill (effectiveness)  
Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency                      87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.  
Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)**                      Medium volatile liquid

**Concentration of the Substance in Mixture/Article**      Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario  
controlling worker  
exposure for:**

**Risk Management Measures**

CS1: General exposures  
CS54: Continuous process  
CS107: (closed systems)

No other specific measures identified.

CS1: General exposures  
CS54: Continuous process  
CS56: with sample collection  
CS107: (closed systems)

No other specific measures identified.

CS37: Use in contained  
batch processes

No other specific measures identified.

CS16: General exposures  
(open systems)

No other specific measures identified.

CS2: Process sampling  
CS107: (closed systems) :  
short term exposure

No other specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

CS39: Equipment cleaning and maintenance No other specific measures identified.

CS14: Bulk transfers CS81: Dedicated facility Clear transfer lines prior to de-coupling.

CS85: Bulk product storage CS107: (closed systems) No other specific measures identified.

CS36: Laboratory activities No other specific measures identified.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Use as intermediate

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Process category:**

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC15: Use as laboratory reagent

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Environmental release category:**

ERC6a: Industrial use resulting in manufacture of another substance (use of intermediates)

**Processes, tasks activities covered**

Use as intermediate

Includes recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 57200 ton(s)/year

Daily site tonnage Msperc (kg/day) 38133 KG

Fraction of EU tonnage used in region 1

Fraction of main source to local environment 0.2

Fraction of substance in end-use products 1

**Frequency and duration of use**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

300 days/year

Continuous

**Environment factors not influenced by risk management**

|                                 |     |
|---------------------------------|-----|
| Dilution Factor (River)         | 10  |
| Dilution Factor (Coastal Areas) | 100 |

Remarks Wet process

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Use bunds or dikes around storage facilities to prevent soil and water pollution in the event of a spill (effectiveness)  
Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %  
Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.  
Dispose of waste solvent and used containers according to local regulations.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Contributing scenario  
controlling worker  
exposure for:**

**Risk Management Measures**

CS1: General exposures  
CS54: Continuous process  
CS107: (closed systems)

No other specific measures identified.

CS1: General exposures  
CS54: Continuous process  
CS56: with sample collection  
CS107: (closed systems)

No other specific measures identified.

CS37: Use in contained  
batch processes

No other specific measures identified.

CS16: General exposures  
(open systems)

No other specific measures identified.

CS2: Process sampling  
CS107: (closed systems) :  
short term exposure

No other specific measures identified.

CS39: Equipment cleaning  
and maintenance

No other specific measures identified.

CS14: Bulk transfers CS81:  
Dedicated facility

Clear transfer lines prior to de-coupling.

CS85: Bulk product storage  
CS107: (closed systems)

No other specific measures identified.

CS36: Laboratory activities

No other specific measures identified.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Formulation & (re)packing of substance and mixtures

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Process category:**

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC14: Production of preparations or articles by tableting, compression, extrusion, pelletization

PROC15: Use as laboratory reagent

**Environmental release category:**

ERC2: Formulation of preparations

**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.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

**Physical Form (at time of use)**      Medium volatile liquid

**Water solubility**      Complete.

**Biodegradability**      Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year)      63050 ton(s)/year

Daily site tonnage Mspc (kg/day)      84066 KG

Fraction of EU tonnage used in region      1

Fraction of main source to local environment      0.4

Fraction of substance in end-use products      0.3

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River)      10

Dilution Factor (Coastal Areas)      100

**Other given operational conditions affecting environmental exposure**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Number of emission days per year 300

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Use bunds or dikes around storage facilities to prevent soil and water pollution in the event of a spill (effectiveness)  
Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.  
Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario controlling worker exposure for:**

**Risk Management Measures**

CS1: General exposures  
CS54: Continuous process  
CS57: no sampling CS107:  
(closed systems)

No other specific measures identified.

CS1: General exposures  
CS54: Continuous process  
CS56: with sample collection  
CS107: (closed systems)

No other specific measures identified.

CS1: General exposures  
CS37: Use in contained

No other specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

batch processes CS56: with  
sample collection

CS16: General exposures  
(open systems)

No other specific measures identified.

CS136: Batch processes at  
elevated temperatures  
CS107: (closed systems)

Provide extraction ventilation at points where emissions  
occur.

CS2: Process sampling  
CS107: (closed systems)

No other specific measures identified.

CS14: Bulk transfers CS81:  
Dedicated facility

No other specific measures identified.

CS30: Mixing operations  
(open systems)

No other specific measures identified.

CS22: Transfer from/pouring  
from containers CS34:  
Manual

No other specific measures identified.

CS39: Equipment cleaning  
and maintenance

No other specific measures identified.

CS8: Drum/batch transfers  
CS81: Dedicated facility

No other specific measures identified.

CS100: Production or  
preparation of articles by  
tableting, compression,  
extrusion or pelletization

No other specific measures identified.

CS6: Drum and small  
package filling CS81:  
Dedicated facility

No other specific measures identified.

CS85: Bulk product storage  
CS107: (closed systems)

No other specific measures identified.

CS36: Laboratory activities

No other specific measures identified.

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

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Uses in Coatings - Solvent-based process.

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Process category:**

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)

PROC7: Industrial spraying

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC10: Roller application or brushing

PROC13: Treatment of articles by dipping and pouring

PROC14: Production of preparations or articles by tableting, compression, extrusion, pelletization

PROC15: Use as laboratory reagent

**Environmental release category:**

ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

**Processes, tasks activities covered**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

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, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 63050 ton(s)/year

Daily site tonnage Msperc (kg/day) 105087 KG

Fraction of EU tonnage used in region 1

Fraction of main source to local environment 0.05

Fraction of substance in end-use products 0.3

**Frequency and duration of use**

300 days/year

Continuous

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Environment factors not influenced by risk management**

Dilution Factor (River) 10  
Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300  
Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

Treat air emission to provide a typical removal efficiency of 70 %.  
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %  
Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.  
Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario controlling worker exposure for:**

**Risk Management Measures**

CS15: General exposures (closed systems)

No other specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

|  |  |
|--|--|
| CS15: General exposures (closed systems) CS56: with sample collection                      | No other specific measures identified.   |
| CS94: Film formation - force drying (50 - 100°C). Stoving (>100°C). UV/EB radiation curing | No other specific measures identified.   |
| CS29: Mixing operations (closed systems) CS15: General exposures (closed systems)          | No other specific measures identified.   |
| CS95: Film formation - air drying  | No other specific measures identified.   |
| CS96: Preparation of material for application<br>CS30: Mixing operations (open systems)    | No other specific measures identified.   |
| CS97: Spraying (automatic/robotic)   | Carry out in a vented booth or extracted enclosure.  |
| CS10: Spraying CS34: Manual  | Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).<br>Wear suitable gloves tested to EN374. |
| CS3: Material transfers<br>CS82: Non-dedicated facility                                    | No other specific measures identified.   |
| CS3: Material transfers<br>CS81: Dedicated facility  | No other specific measures identified.   |
| CS98: Roller, spreader, flow application   | Wear suitable gloves tested to EN374.  |
| CS4: Dipping, immersion and pouring  | No other specific measures identified.   |
| CS36: Laboratory activities  | No other specific measures identified.   |
| CS3: Material transfers CS8: Drum/batch transfers CS22:                                    | No other specific measures identified.   |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Transfer from/pouring from  
containers CS81: Dedicated  
facility

CS100: Production or  
preparation or articles by  
tableting, compression,  
extrusion or pelletization

No other specific measures identified.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Uses in Coatings - Water-based process.

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Process category:**

- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
- PROC7: Industrial spraying
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
- PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
- PROC10: Roller application or brushing
- PROC13: Treatment of articles by dipping and pouring
- PROC14: Production of preparations or articles by tableting, compression, extrusion, pelletization
- PROC15: Use as laboratory reagent

**Environmental release category:**

- ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

**Processes, tasks activities covered**

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, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

- Physical Form (at time of use)**      Medium volatile liquid
- Water solubility**                      Complete.
- Biodegradability**                      Readily biodegradable

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Amount used**

|  |                  |
|--|------------------|
| Amounts used in the EU (tonnes/year)         | 2600 ton(s)/year |
| Daily site tonnage Mspc (kg/day)             | 430 KG           |
| Fraction of EU tonnage used in region        | 1                |
| Fraction of main source to local environment | 0.05             |
| Fraction of substance in end-use products    | 0.05             |

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

|                                 |     |
|---------------------------------|-----|
| Dilution Factor (River)         | 10  |
| Dilution Factor (Coastal Areas) | 100 |

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Use bunds or dikes around storage facilities to prevent soil and water pollution in the event of a spill (effectiveness)  
Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 5%.

**Amount used**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

Remarks      Not relevant for this scenario

**Frequency and duration of use**

Frequency of use      8 hours/day

Remarks      Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

| <b>Contributing scenario controlling worker exposure for:</b>                              | <b>Risk Management Measures</b>        |
|--|--|
| CS15: General exposures (closed systems)   | No other specific measures identified. |
| CS15: General exposures (closed systems) CS56: with sample collection                      | No other specific measures identified. |
| CS94: Film formation - force drying (50 - 100°C). Stoving (>100°C). UV/EB radiation curing | No other specific measures identified. |
| CS29: Mixing operations (closed systems) CS15: General exposures (closed systems)          | No other specific measures identified. |
| CS95: Film formation - air drying  | No other specific measures identified. |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

|  |  |
|--|--|
| CS96: Preparation of material for application<br>CS30: Mixing operations (open systems)                                | No other specific measures identified. |
| CS97: Spraying (automatic/robotic)   | Wear suitable gloves tested to EN374.  |
| CS10: Spraying CS34: Manual  | Wear suitable gloves tested to EN374.  |
| CS3: Material transfers<br>CS82: Non-dedicated facility  | No other specific measures identified. |
| CS3: Material transfers<br>CS81: Dedicated facility  | No other specific measures identified. |
| CS98: Roller, spreader, flow application   | Wear suitable gloves tested to EN374.  |
| CS4: Dipping, immersion and pouring  | No other specific measures identified. |
| CS36: Laboratory activities  | No other specific measures identified. |
| CS3: Material transfers CS8: Drum/batch transfers CS22: Transfer from/pouring from containers CS81: Dedicated facility | No other specific measures identified. |
| CS100: Production or preparation or articles by tableting, compression, extrusion or pelletization                     | No other specific measures identified. |

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

**Health** No additional information detailed.

**Environment** No additional information detailed.



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Uses in Coatings - Solvent-based process.

**Use Descriptors**

**Sector of use:**

SU22: Public domain (administration, education, entertainment, services, craftsmen)

**Process category:**

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC10: Roller application or brushing

PROC11: Non industrial spraying

PROC13: Treatment of articles by dipping and pouring

PROC15: Use as laboratory reagent

PROC19: Hand-mixing with intimate contact and only PPE available

**Environmental release category:**

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

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, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

**Section 2: Operational conditions and risk management measures**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 63050 ton(s)/year

Daily site tonnage Msperc (kg/day) 10508 KG

Fraction of EU tonnage used in region 1

Fraction of main source to local environment 0.05

Fraction of substance in end-use products 0.3

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Number of emission days per year 300

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

A leak prevention plan is needed to prevent low level continual releases.

Prevent discharge of substance to waste water or recover from wastewater

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario controlling worker exposure for:**

**Risk Management Measures**

CS15: General exposures (closed systems)

No other specific measures identified.

CS45: Filling/ preparation of equipment from drums or containers.

No other specific measures identified.

CS15: General exposures (closed systems) CS38: Use in contained systems

No other specific measures identified.

CS96: Preparation of material for application

No other specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

|  |  |
|--|--|
| CS95: Film formation - air drying<br>OC9: Outdoor                                | No other specific measures identified.   |
| CS95: Film formation - air drying<br>OC8: Indoor                                 | No other specific measures identified.   |
| CS96: Preparation of material for application<br>OC8: Indoor                     | Provide a good standard of general ventilation (not less than 3-5 air changes per hour)  |
| CS96: Preparation of material for application<br>OC9: Outdoor                    | Ensure operation is undertaken outdoors.   |
| CS3: Material transfers<br>Drum/batch transfers<br>CS82: Non-dedicated facility  | Provide a good standard of general ventilation (not less than 3-5 air changes per hour)  |
| CS3: Material transfers<br>CS81: Dedicated facility<br>CS8: Drum/batch transfers | No other specific measures identified.   |
| CS98: Roller, spreader, flow application<br>OC8: Indoor                          | Provide a good standard of general ventilation (not less than 3-5 air changes per hour)<br>Wear suitable gloves tested to EN374.                         |
| CS98: Roller, spreader, flow application<br>OC9: Outdoor                         | Ensure operation is undertaken outdoors.<br>Wear suitable gloves tested to EN374.  |
| CS10: Spraying<br>Manual<br>OC8: Indoor  | Carry out in a vented booth or extracted enclosure.<br>Wear a respirator conforming to EN140 with Type A filter or better.                               |
| CS10: Spraying<br>Manual<br>OC9: Outdoor   | Ensure operation is undertaken outdoors.<br>Wear a respirator conforming to EN140 with Type A filter or better.<br>Wear suitable gloves tested to EN374. |
| CS4: Dipping, immersion and pouring<br>OC8: Indoor                               | Provide a good standard of general ventilation (not less than 3-5 air changes per hour)  |
| CS4: Dipping, immersion and pouring<br>OC9: Outdoor                              | Ensure operation is undertaken outdoors.   |
| CS36: Laboratory activities  | No other specific measures identified.   |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

CS72: Hand application -  
finger-paints, pastels,  
adhesives OC8: Indoor

Provide a good standard of general ventilation (not less than  
3-5 air changes per hour)  
Wear chemically resistant gloves (tested to EN374) in  
combination with 'basic' employee training.

CS72: Hand application -  
finger-paints, pastels,  
adhesives OC9: Outdoor

Ensure operation is undertaken outdoors.  
Wear chemically resistant gloves (tested to EN374) in  
combination with 'basic' employee training.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Uses in Coatings - Water-based process.

**Use Descriptors**

**Sector of use:**

SU22: Public domain (administration, education, entertainment, services, craftsmen)

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Process category:**

- PROC1: Use in closed process, no likelihood of exposure
- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
- PROC10: Roller application or brushing
- PROC11: Non industrial spraying
- PROC13: Treatment of articles by dipping and pouring
- PROC15: Use as laboratory reagent
- PROC19: Hand-mixing with intimate contact and only PPE available

**Environmental release category:**

- ERC8a: Wide dispersive indoor use of processing aids in open systems
- ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

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, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

- Physical Form (at time of use)**      Medium volatile liquid
- Water solubility**                      Complete.
- Biodegradability**                      Readily biodegradable

**Amount used**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

|  |                  |
|--|------------------|
| Amounts used in the EU (tonnes/year)         | 2600 ton(s)/year |
| Daily site tonnage Msperc (kg/day)           | 433 KG           |
| Fraction of EU tonnage used in region        | 1                |
| Fraction of main source to local environment | 0.05             |
| Fraction of substance in end-use products    | 0.05             |

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

|                                 |     |
|---------------------------------|-----|
| Dilution Factor (River)         | 10  |
| Dilution Factor (Coastal Areas) | 100 |

**Other given operational conditions affecting environmental exposure**

Number of emission days per year      300

Remarks      No specific measures identified.

**Technical conditions and measures / Organizational measures**

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.  
A leak prevention plan is needed to prevent low level continual releases.  
Use bunds or dikes around storage facilities to prevent soil and water pollution in the event of a spill (effectiveness)  
Prevent discharge of substance to waste water or recover from wastewater



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 5%.

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Frequency of use                      8 hours/day

Remarks                                      Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

| <b>Contributing scenario<br/>controlling worker<br/>exposure for:</b>   | <b>Risk Management Measures</b>        |
|---|--|
| CS15: General exposures (closed systems)                                | No other specific measures identified. |
| CS45: Filling/ preparation of equipment from drums or containers.       | No other specific measures identified. |
| CS15: General exposures (closed systems) CS38: Use in contained systems | No other specific measures identified. |
| CS96: Preparation of material for application                           | No other specific measures identified. |
| CS95: Film formation - air drying OC9: Outdoor                          | No other specific measures identified. |
| CS95: Film formation - air drying OC8: Indoor                           | No other specific measures identified. |
| CS96: Preparation of material for application OC8: Indoor               | No other specific measures identified. |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

|  |  |
|--|--|
| CS96: Preparation of material for application OC9: Outdoor                     | No other specific measures identified.   |
| CS3: Material transfers CS8: Drum/batch transfers CS82: Non-dedicated facility | No other specific measures identified.   |
| CS3: Material transfers CS81: Dedicated facility CS8: Drum/batch transfers     | No other specific measures identified.   |
| CS98: Roller, spreader, flow application OC8: Indoor                           | No other specific measures identified.   |
| CS98: Roller, spreader, flow application OC9: Outdoor                          | No other specific measures identified.   |
| CS10: Spraying CS34: Manual OC8: Indoor  | Provide a good standard of general ventilation (not less than 3-5 air changes per hour)<br>Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| CS10: Spraying CS34: Manual OC9: Outdoor                                       | Ensure operation is undertaken outdoors.<br>Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.  |
| CS4: Dipping, immersion and pouring OC8: Indoor                                | No other specific measures identified.   |
| CS4: Dipping, immersion and pouring OC9: Outdoor                               | No other specific measures identified.   |
| CS36: Laboratory activities  | No other specific measures identified.   |
| CS72: Hand application - finger-paints, pastels, adhesives OC8: Indoor         | Wear suitable gloves tested to EN374.  |
| CS72: Hand application - finger-paints, pastels, adhesives OC9: Outdoor        | Wear suitable gloves tested to EN374.  |

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

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Consumer use in paints, coatings, (water based)

**Use Descriptors**

**Sector of use:**

SU21: Private households (=general public = consumers)

**Product category:**

PC9: Coatings and Paints, Fillers, Putties, Thinners

**Process category:**

: Not applicable.

**Environmental release category:**

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

Covers the use in paints and coatings including exposures during use (including product preparation and mixing, application by brush or rolling, and equipment cleaning).

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 2600 ton(s)/year

Fraction of EU tonnage used in region 0.1

Fraction of main source to local environment 0.0001

**Frequency and duration of use**

300 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300

**Technical conditions and measures / Organizational measures**

- Do not let product enter drains.
- Do not discharge into sewers or drains
- Dispose of waste solvent and used containers according to local regulations.
- Prevent exposure of soil using protective covers

**Conditions and measures related to municipal sewage treatment plant**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Removal Efficiency 87 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of consumer exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 5%.

**Amount used**

Amount used per event 1880 g/event

**Frequency and duration of use**



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Use in Cleaning Agents

**Use Descriptors**

**Sector of use:**

SU3: Industrial Manufacturing (all)

**Process category:**

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC7: Industrial spraying

PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

PROC10: Roller application or brushing

PROC13: Treatment of articles by dipping and pouring

**Environmental release category:**

ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

**Processes, tasks activities covered**

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.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Amount used**

|  |                  |
|--|------------------|
| Annual site tonnage (tonnes/year)            | 5200 ton(s)/year |
| Daily site tonnage Msperc (kg/day)           | 5000 KG          |
| Fraction of EU tonnage used in region        | 1                |
| Fraction of main source to local environment | 0.0192           |
| Fraction of substance in end-use products    | 0.3              |

**Frequency and duration of use**

20 days/year

Continuous

**Environment factors not influenced by risk management**

|                                 |     |
|---------------------------------|-----|
| Dilution Factor (River)         | 10  |
| Dilution Factor (Coastal Areas) | 100 |

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 20

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario controlling worker exposure for:**

**Risk Management Measures**

CS14: Bulk transfers CS82: Non-dedicated facility

No other specific measures identified.

CS38: Use in contained systems CS93: Automated process with (semi) closed systems.

No other specific measures identified.

CS38: Use in contained systems CS93: Automated process with (semi) closed systems. CS8: Drum/batch transfers

No other specific measures identified.

CS101: Application of cleaning products in closed systems

No other specific measures identified.

CS45: Filling/ preparation of equipment from drums or containers. CS81: Dedicated facility

No other specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

CS37: Use in contained batch processes CS129: Treatment by heating

Provide extraction ventilation at points where emissions occur.

CS41: Degreasing small objects in cleaning station

No other specific measures identified.

CS42: Cleaning with low-pressure washers

Wear suitable gloves tested to EN374.

CS44: Cleaning with high pressure washers

Limit the substance content in the product to 25 %.  
Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).

CS47: Cleaning Surfaces CS48: Surfaces CS60: no spraying CS34: Manual

Wear suitable gloves tested to EN374.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Use in Cleaning Agents

**Use Descriptors**

**Sector of use:**

SU22: Public domain (administration, education, entertainment, services, craftsmen)

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Process category:**

- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC3: Use in closed batch process (synthesis or formulation)
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
- PROC10: Roller application or brushing
- PROC11: Non industrial spraying
- PROC13: Treatment of articles by dipping and pouring

**Environmental release category:**

- ERC8a: Wide dispersive indoor use of processing aids in open systems
- ERC8d: Wide dispersive outdoor use of processing aids in open systems
- : ESVOC9/ ESVOC SpERC 8.4a.v1

**Processes, tasks activities covered**

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).

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Annual site tonnage (tonnes/year) 5200 ton(s)/year

Daily site tonnage Msperc (kg/day) 0.71 KG

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Fraction of EU tonnage used in region 0.1

Fraction of main source to local environment 0.0005

Fraction of substance in end-use products 0.3

**Frequency and duration of use**

365 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 365

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

Treat air emission to provide a typical removal efficiency of 70 %.  
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87.3 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Conditions and measures related to external treatment of waste for disposal**

Total efficiency of water from wastewater after onsite and offsite (domestic treatment plant) RMMs 87.3 %.

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 100 % (unless stated differently).

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario  
 controlling worker  
 exposure for:**

**Risk Management Measures**

CS45: Filling/ preparation of equipment from drums or containers. CS81: Dedicated facility

No other specific measures identified.

CS38: Use in contained systems CS93: Automated process with (semi) closed systems.

No other specific measures identified.

CS38: Use in contained systems CS93: Automated process with (semi) closed systems. CS8: Drum/batch transfers

No other specific measures identified.

CS76: Semi Automated process. (e.g.: Semi automatic application of floor care and maintenance products)

No other specific measures identified.

CS45: Filling/ preparation of equipment from drums or containers. CS82: Non-dedicated facility OC9: Outdoor

Avoid carrying out activities involving exposure for more than 4 hours.  
 Ensure operation is undertaken outdoors.

CS47: Cleaning Surfaces CS48: Manual CS4: Dipping, immersion and pouring

Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).

CS42: Cleaning with low-

Provide a good standard of general or controlled ventilation



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9      Revision Date 10/28/2019      Print Date 03/24/2020      SDS No.: BE2333

- |   |   |
|---|---|
| pressure washers  | (10 to 15 air changes per hour).  |
| CS44: Cleaning with high pressure washers OC8: Indoor                                     | Limit the substance content in the product to 5 %.<br>Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).<br>Wear suitable gloves tested to EN374.        |
| CS44: Cleaning with high pressure washers OC9: Outdoor                                    | Limit the substance content in the product to 5 %.<br>Ensure operation is undertaken outdoors.<br>Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. |
| CS47: Cleaning Surfaces CS48: Spraying CS10: Spraying CS34: Manual                        | Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).<br>Wear suitable gloves tested to EN374.  |
| CS27: Ad hoc manual application via trigger sprays, dipping, etc. CS51: Rolling, Brushing | Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).<br>Wear suitable gloves tested to EN374.  |
| CS27: Ad hoc manual application via trigger sprays, dipping, etc. CS51: Rolling, Brushing | Provide extraction ventilation at points where emissions occur.   |
| CS101: Application of cleaning products in closed systems                                 | No other specific measures identified.  |
| CS74: Cleaning of medical devices   | No other specific measures identified.  |

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

**Health**                      No additional information detailed.

**Environment**              No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health**                      No additional information detailed.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Consumer use in cleaning agents

**Use Descriptors**

**Sector of use:**

SU21: Private households (=general public = consumers)

**Product category:**

PC35: Washing and cleaning products (including solvent based products)

**Process category:**

: Not applicable.

**Environmental release category:**

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

Covers the use in cleaning agents and detergents including spraying and wiping.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 260 ton(s)/year

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Fraction of EU tonnage used in region 0.1

Fraction of main source to local environment 0.0005

**Frequency and duration of use**

365 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 365

**Technical conditions and measures / Organizational measures**

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

No specific measures identified.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of consumer exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 10%.

**Amount used**

Amount used per event 16 g/event

**Frequency and duration of use**

Frequency and duration of use

Remarks 1/day for up to 1 hr; 365 days per year. Maximum of 3 events per day for up to 3 hr.

**Human factors not influenced by risk management**

Indoor or outdoor use at ambient temperature. Worse case assumption was indoor use in room size of 20 m<sup>3</sup> with open doors and open windows.

**Contributing scenario controlling consumer exposure for:**

Washing and cleaning products (including solvent based products)

**Operational conditions and risk management measures**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Remarks:

Covers substance concentrations up to 10% for use up 16 g for up to 1 hr per day exposure.

Washing and cleaning products (including solvent based products)

**Operational conditions and risk management measures**

Remarks:

Covers substance concentrations up to 10% for use up 48 g for up to 3 hr per day exposure.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Use in Agrochemicals

**Use Descriptors**

**Sector of use:**

SU22: Public domain (administration, education, entertainment, services, craftsmen)

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Process category:**

- PROC2: Use in closed, continuous process with occasional controlled exposure
- PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
- PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
- PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
- PROC11: Non industrial spraying
- PROC13: Treatment of articles by dipping and pouring

**Environmental release category:**

ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging; including equipment clean-downs and disposal.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

|  |                 |
|--|-----------------|
| Amounts used in the EU (tonnes/year)         | 650 ton(s)/year |
| Fraction of EU tonnage used in region        | 1               |
| Fraction of main source to local environment | 0.001           |
| Fraction of substance in end-use products    | 0.1             |

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Frequency and duration of use**

2 days/year Intermittent Releases

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 2

Remarks No specific measures identified.

**Technical conditions and measures / Organizational measures**

**Conditions and measures related to municipal sewage treatment plant**

No specific measures identified.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of worker exposure**

**Product characteristics**

**Physical Form (at time of use)** Medium volatile liquid

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 25 %.

**Amount used**

Remarks Not relevant for this scenario

**Frequency and duration of use**

Frequency of use 8 hours/day

Remarks Covers daily exposures up to 8 hours (unless stated differently).

**Human factors not influenced by risk management**

None identified for this scenario.

**Other operational conditions affecting workers exposure**

Assumes use at not > 20°C above ambient [OC6] Assumes a good basic standard of occupational hygiene is implemented.

**Contributing scenario controlling worker exposure for:**

**Risk Management Measures**

CS22: Transfer from/pouring from containers CS81: Dedicated facility

No other specific measures identified.

CS30: Mixing operations (open systems) OC9: Outdoor

No other specific measures identified.

CS24: Spraying/ fogging by manual application OC9: Outdoor

Wear suitable gloves tested to EN374.  
Wear a respirator conforming to EN140 with Type A filter or better.



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

CS25: Spraying/ fogging by machine application      Carry out in a vented booth or extracted enclosure.

CS27: Ad hoc manual application via trigger sprays, dipping, etc.      No other specific measures identified.

CS39: Equipment cleaning and maintenance      No other specific measures identified.

CS28: Disposal of wastes  
OC9: Outdoor      No other specific measures identified.

CS67: Material storage  
OC9: Outdoor      No other specific measures identified.

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

**Health**      No additional information detailed.

**Environment**      No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health**      No additional information detailed.

**Environment**      No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title**      Use in cosmetics (environment)

**Use Descriptors**

**Sector of use:**  
SU21: Private households (=general public = consumers)

**Product category:**  
: Not applicable

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Process category:**

: Not applicable.

**Environmental release category:**

ERC8a: Wide dispersive indoor use of processing aids in open systems

: SpERC ESVOC 37/ ESVOC SpERC 8.16v1

**Processes, tasks activities covered**

Covers the use in cosmetics (e.g. fingernails polish, polish remover, etc.)

**Section 2: Operational conditions and risk management measures**

Not applicable.

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Remarks** Medium volatility

**Amount used**

Amounts used in the EU (tonnes/year) 260 ton(s)/year

Fraction of EU tonnage used in region 0.1

Fraction of main source to local environment 0.0005

Fraction of substance in end-use products 0.05

Daily site tonnage Msperc (kg/day) 0.04

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Frequency and duration of use**

365 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 365

**Technical conditions and measures / Organizational measures**

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Not specified

**Conditions and measures related to external recovery of waste**

Not specified

**Section 2.2: Control of consumer exposure**

**Product characteristics**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Physical Form (at time of use)** liquid

**Amount used**

Remarks Not applicable

**Frequency and duration of use**

Remarks Not applicable

**Human factors not influenced by risk management**

Not applicable.

**Contributing scenario controlling consumer exposure for:**

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Consumer use in paints, coatings

**Use Descriptors**

**Sector of use:**

SU21: Private households (=general public = consumers)

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Product category:**

PC9: Coatings and Paints, Fillers, Putties, Thinners

**Process category:**

: Not applicable.

**Environmental release category:**

ERC8a: Wide dispersive indoor use of processing aids in open systems

ERC8d: Wide dispersive outdoor use of processing aids in open systems

**Processes, tasks activities covered**

Covers the use in paints and coatings including exposures during use (including product preparation and mixing, application by brush or rolling, and equipment cleaning).

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)**

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 63050 ton(s)/year

Fraction of EU tonnage used in region 1

Fraction of main source to local environment 0.0001

Fraction of substance in end-use products 0.3

**Frequency and duration of use**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

300 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 300

**Technical conditions and measures / Organizational measures**

Do not let product enter drains.  
Dispose of waste solvent and used containers according to local regulations.  
Prevent exposure of soil using protective covers

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Conditions and measures related to external treatment of waste for disposal**

Dispose of waste solvent and used containers according to local regulations.

**Conditions and measures related to external recovery of waste**

No specific measures identified.

**Other environmental control measures additional to above**

No specific measures identified.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

**Section 2.2: Control of consumer exposure**

**Product characteristics**

**Physical Form (at time of use)**

**Amount used**

Amount used per event 500 g/event

**Frequency and duration of use**

Frequency and duration of use

Remarks 1/day for up to 1 hr; 365 days per year. Maximum of 3 events per day for up to 3 hr.

**Human factors not influenced by risk management**

Indoor or outdoor use at ambient temperature. Worse case assumption was indoor use in room size of 20 m3 with open doors and open windows.

**Contributing scenario controlling consumer exposure for:**

Coatings and paints, thinners, paint removers

**Operational conditions and risk management measures**

Remarks: For each use event, avoid using a product amount greater than 500g. Avoid using in room with closed doors. Avoid using when windows closed.

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Remarks: Avoid using at a product concentration greater than 10%.

Remarks: Avoid using product more than one time per day for greater than 1.1 hours.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 1: Title of Exposure Scenario**

**Short title** Consumer use in de-icing products

**Use Descriptors**

**Sector of use:**  
SU21: Private households (=general public = consumers)

**Product category:**  
PC4: Anti-Freeze and de-icing products

**Process category:**  
: Not applicable.

**Environmental release category:**  
ERC8a: Wide dispersive indoor use of processing aids in open systems  
ERC8d: Wide dispersive outdoor use of processing aids in open systems  
: SpERC ESVOC 35

**Processes, tasks activities covered**



**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Covers the use in de-icing products for automobile windscreens and locks applied by trigger spray or aerosol.

**Section 2: Operational conditions and risk management measures**

**Section 2.1: Control of environmental exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Water solubility** Complete.

**Biodegradability** Readily biodegradable

**Amount used**

Amounts used in the EU (tonnes/year) 260 ton(s)/year

Fraction of EU tonnage used in region 0.1

Fraction of main source to local environment 0.002

Fraction of substance in end-use products 0.3

**Frequency and duration of use**

365 days/year

Continuous

**Environment factors not influenced by risk management**

Dilution Factor (River) 10

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Dilution Factor (Coastal Areas) 100

**Other given operational conditions affecting environmental exposure**

Number of emission days per year 365

**Technical conditions and measures / Organizational measures**

**Conditions and measures related to municipal sewage treatment plant**

Removal Efficiency 87 %

Estimated substance removal from wastewater via domestic sewage treatment 87.3%

**Other environmental control measures additional to above**

No specific measures identified.

**Section 2.2: Control of consumer exposure**

**Product characteristics**

**Physical Form (at time of use)** High volatile liquid

**Concentration of the Substance in Mixture/Article** Covers the percentage of the substance in the product up to 30 %.

**Amount used**

Amount used per event 500 g/event

Remarks (entire container)

**Frequency and duration of use**

**Glycol Ether PM SOLVENT**

Gen. Variant: SDS\_NL

Version 1.9

Revision Date 10/28/2019

Print Date 03/24/2020

SDS No.: BE2333

Frequency and duration  
of use

Remarks One event per day for up to 0.5 hr. Consumer only uses during winter conditions.

**Human factors not influenced by risk management**

**Contributing scenario controlling consumer exposure for:**

Anti-Freeze and de-icing products

**Operational conditions and risk management measures**

Remarks: For each use event, avoid using a product amount greater than 500g.  
Covers outdoor use

Remarks: Avoid using at a product concentration greater than 30%.  
Avoid using product more than one time per day for greater than 0.5 hours.

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

**Health** No additional information detailed.

**Environment** No additional information detailed.

**Section 4 : Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario**

**Health** No additional information detailed.

**Environment** No additional information detailed.