

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Propylene

Reference number: 105

Revision date: 30/08/2021 Supersedes version of: 01/01/2012 Issue date: 01/01/2012 Version: 7.0

Danger



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

1.1. Product identifier

Trade name : Propylene
SDS no : 105
Chemical description : Propylene
CAS-No. : 115-07-1
EC-No. : 204-062-1
EC Index-No. : 601-011-00-9
Registration-No. : 01-2119447103-50-XXXX
Chemical formula : C₃H₆

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

Relevant identified uses : Industrial and professional uses. Perform risk assessment prior to use.
Test gas/Calibration gas.
Chemical reaction / Synthesis.
Laboratory use.
Polymer production.
Contact supplier for more information on uses.
Industrial use. Perform risk assessment prior to use.

Uses advised against : Consumer use.

1.3. Details of the supplier of the safety data sheet

Company identification : SOL SpA
Via G. Borgazzi 27
20900 MONZA - Italia
T +39 039 23.96.1
<http://www.sol.it>
msds@sol.it

E-Mail address (competent person) : msds@sol.it

1.4. Emergency telephone number

Emergency telephone number : Linea verde SET - 800452661 (24h/24h, 365 giorni l'anno); Dall'estero +39 0283421263

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards	Flammable gases, Category 1A	H220
	Gases under pressure : Liquefied gas	H280

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS04

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP)

- Prevention

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.

- Response

: P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.

- Storage

: P403 - Store in a well-ventilated place.

2.3. Other hazards

Asphyxiant in high concentrations.
Contact with liquid may cause cold burns/frostbite.
These high concentrations are within the flammability range.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propylene	CAS-No.: 115-07-1 EC-No.: 204-062-1 EC Index-No.: 601-011-00-9 Registration-No.: 01-2119447103-50	100	Flam. Gas 1A, H220 Press. Gas (Liq.), H280

Contains no other components or impurities which will influence the classification of the product.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.
- Skin contact : In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
- Eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes.
- Ingestion : Ingestion is not considered a potential route of exposure.

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

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination.
Refer to section 11.

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

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray or fog.
Dry powder.
Carbon dioxide.
Shutting off the source of the gas is the preferred method of control.
Be aware of the risk of formation of static electricity with the use of CO2 extinguishers. Do not use them in places where a flammable atmosphere may be present.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

- Specific hazards : Exposure to fire may cause containers to rupture/explode.
- Hazardous combustion products : Carbon monoxide.

5.3. Advice for firefighters

- Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.
If possible, stop flow of product.
Use water spray or fog to knock down fire fumes if possible.
Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
Move containers away from the fire area if this can be done without risk.
- Special protective equipment for fire fighters : In confined space use self-contained breathing apparatus.
Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.
Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel : Act in accordance with local emergency plan.
Try to stop release.
Evacuate area.
Eliminate ignition sources.
Ensure adequate air ventilation.
Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Stay upwind.
See section 8 of the SDS for more information on personal protective equipment
- For emergency responders : Monitor concentration of released product.
Consider the risk of potentially explosive atmospheres.
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
See section 5.3 of the SDS for more information.

6.2. Environmental precautions

- Try to stop release.

6.3. Methods and material for containment and cleaning up

- Ventilate area.

6.4. Reference to other sections

- See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe use of the product

- : The product must be handled in accordance with good industrial hygiene and safety procedures.
- Only experienced and properly instructed persons should handle gases under pressure.
- Consider pressure relief device(s) in gas installations.
- Ensure the complete gas system was (or is regularly) checked for leaks before use.
- Do not smoke while handling product.
- Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
- Avoid suck back of water, acid and alkalis.
- Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.
- Purge air from system before introducing gas.
- Take precautionary measures against static discharge.
- Keep away from ignition sources (including static discharges).
- Consider the use of only non-sparking tools.
- Do not breathe gas.
- Avoid release of product into work area.
- Ensure equipment is adequately earthed.

Safe handling of the gas receptacle

- : Refer to supplier's container handling instructions.
- Do not allow backfeed into the container.
- Protect containers from physical damage; do not drag, roll, slide or drop.
- When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.
- Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- If user experiences any difficulty operating valve discontinue use and contact supplier.
- Never attempt to repair or modify container valves or safety relief devices.
- Damaged valves should be reported immediately to the supplier.
- Keep container valve outlets clean and free from contaminants particularly oil and water.
- Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
- Close container valve after each use and when empty, even if still connected to equipment.
- Never attempt to transfer gases from one cylinder/container to another.
- Never use direct flame or electrical heating devices to raise the pressure of a container.
- Do not remove or deface labels provided by the supplier for the identification of the content of the container.
- Suck back of water into the container must be prevented.
- Open valve slowly to avoid pressure shock.

7.2. Conditions for safe storage, including any incompatibilities

- Observe all regulations and local requirements regarding storage of containers.
- Containers should not be stored in conditions likely to encourage corrosion.
- Container valve guards or caps should be in place.
- Containers should be stored in the vertical position and properly secured to prevent them from falling over.
- Stored containers should be periodically checked for general condition and leakage.
- Keep container below 50°C in a well ventilated place.
- Store containers in location free from fire risk and away from sources of heat and ignition.
- Keep away from combustible materials.
- Segregate from oxidant gases and other oxidants in store.
- All electrical equipment in the storage areas should be compatible with the risk of a potentially explosive atmosphere.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL (Derived-No Effect Level) : None established.

Propylene (115-07-1)	
PNEC: Predicted no effect concentration	
Aqua (freshwater)	1.38 mg/l
Aqua (marine water)	1.38 mg/l

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation.
Product to be handled in a closed system.
Systems under pressure should be regularly checked for leakages.
Ensure exposure is below occupational exposure limits (where available).
Gas detectors should be used when flammable gases/vapours may be released.
Consider the use of a work permit system e.g. for maintenance activities.

8.2.2. Individual protection measures, e.g. personal protective equipment

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk.

The following recommendations should be considered:

PPE compliant to the recommended EN/ISO standards should be selected.

- Eye/face protection : Wear goggles when transfilling or breaking transfer connections.
Standard EN 166 - Personal eye-protection - specifications.
- Skin protection
 - Hand protection : Wear working gloves when handling gas containers.
Standard EN 388 - Protective gloves against mechanical risk.
Wear cold insulating gloves when transfilling or breaking transfer connections.
Standard EN 511 - Cold insulating gloves.
 - Other : Consider the use of flame resistant anti-static safety clothing.
Standard EN ISO 14116 - Limited flame spread materials.
Standard EN 1149-5 - Protective clothing: Electrostatic properties.
Wear safety shoes while handling containers.
Standard EN ISO 20345 - Personal protective equipment - Safety footwear.
- Respiratory protection : Gas filters may be used if all surrounding conditions e.g. type and concentration of the contaminant(s) and duration of use are known.
Use gas filters with full face mask, where exposure limits may be exceeded for a short-term period, e.g. connecting or disconnecting containers.
Recommended: Filter AX (brown).
Gas filters do not protect against oxygen deficiency.
Standard EN 14387 - Gas filter(s), combined filter(s) and standard EN136, full face masks .
Self contained breathing apparatus is recommended, where unknown exposure may be expected, e.g. during maintenance activities on installation systems.
- Thermal hazards : None in addition to the above sections.

8.2.3. Environmental exposure controls

Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

- Physical state at 20°C / 101.3kPa : Gas
- Colour : Colourless.

Odour	: Stenchant often added. Sweetish. Poor warning properties at low concentrations.
Odour threshold	: Odour threshold is subjective and inadequate to warn of overexposure.
pH	: Not applicable for gases and gas mixtures.
Melting point / Freezing point	: -185 °C
Boiling point	: -47.7 °C
Flash point	: Not applicable for gases and gas mixtures.
Evaporation rate	: Not applicable for gases and gas mixtures.
Flammability (solid, gas)	: Extremely flammable gas.
Explosive limits	: 1.8 – 11.2 vol %
Vapour pressure [20°C]	: 10.2 bar(a)
Vapour pressure [50°C]	: 20.5 bar(a)
Vapour density	: Not applicable.
Relative density, liquid (water=1)	: 0.6
Relative density, gas (air=1)	: 1.5
Water solubility	: 384 mg/l
Partition coefficient n-octanol/water (Log Kow)	: 1.77
Auto-ignition temperature	: 485 °C
Decomposition temperature	: Not applicable.
Viscosity	: No reliable data available.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.

9.2. Other information

Molar mass	: 42 g/mol
Critical temperature [°C]	: 92.4 °C
Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

May polymerise.

10.3. Possibility of hazardous reactions

Can form explosive mixture with air.
May react violently with oxidants.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Avoid moisture in installation systems.

10.5. Incompatible materials

Air, Oxidisers.
For additional information on compatibility refer to ISO 11114.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Toxicological effects not expected from this product if occupational exposure limit values are not exceeded.
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Skin corrosion/irritation	: No known effects from this product.
Serious eye damage/irritation	: No known effects from this product.
Respiratory or skin sensitisation	: No known effects from this product.
Germ cell mutagenicity	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Toxic for reproduction : Fertility	: No known effects from this product.
Toxic for reproduction : unborn child	: No known effects from this product.
STOT-single exposure	: No known effects from this product.
STOT-repeated exposure	: No known effects from this product.
Aspiration hazard	: Not applicable for gases and gas mixtures.

SECTION 12: Ecological information

12.1. Toxicity

Assessment	: Classification criteria are not met.
EC50 48h - Daphnia magna [mg/l]	: 28.2 mg/l
EC50 72h - Algae [mg/l]	: No data available.
LC50 96 h - Fish [mg/l]	: 51.7 mg/l

12.2. Persistence and degradability

Assessment	: The substance is readily biodegradable. Unlikely to persist.
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12.3. Bioaccumulative potential

Assessment	: Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.
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12.4. Mobility in soil

Assessment	: Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely.
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12.5. Results of PBT and vPvB assessment

Assessment	: Not classified as PBT or vPvB.
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12.6. Other adverse effects

Other adverse effects	: No known effects from this product.
Effect on the ozone layer	: No effect on the ozone layer.
Global warming potential [CO ₂ =1]	: 2
Effect on global warming	: When discharged in large quantities may contribute to the greenhouse effect. Contains greenhouse gas(es).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

	Contact supplier if guidance is required.
	Do not discharge into areas where there is a risk of forming an explosive mixture with air.
	Waste gas should be flared through a suitable burner with flash back arrestor.
	Do not discharge into any place where its accumulation could be dangerous.
	Ensure that the emission levels from local regulations or operating permits are not exceeded.
	Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at http://www.eiga.org for more guidance on suitable disposal methods.
	Return unused product in original container to supplier.
List of hazardous waste codes (from Commission Decision 2000/532/EC as amended)	: 16 05 04 *: Gases in pressure containers (including halons) containing hazardous substances.

13.2. Additional information

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

SECTION 14: Transport information

14.1. UN number

In accordance with ADR / RID / IMDG / IATA / ADN

UN-No. : 1077

14.2. UN proper shipping name

Transport by road/rail (ADR/RID) : PROPYLENE

Transport by air (ICAO-TI / IATA-DGR) : Propylene

Transport by sea (IMDG) : PROPYLENE

14.3. Transport hazard class(es)

Labelling



2.1 : Flammable gases.

Transport by road/rail (ADR/RID)

Class : 2

Classification code : 2F

Hazard identification number : 23

Tunnel Restriction : B/D - Tank carriage : Passage forbidden through tunnels of category B, C, D and E. Other carriage : Passage forbidden through tunnels of category D and E

Transport by air (ICAO-TI / IATA-DGR)

Class / Div. (Sub. risk(s)) : 2.1

Transport by sea (IMDG)

Class / Div. (Sub. risk(s)) : 2.1

Emergency Schedule (EmS) - Fire : F-D

Emergency Schedule (EmS) - Spillage : S-U

14.4. Packing group

Transport by road/rail (ADR/RID) : Not applicable

Transport by air (ICAO-TI / IATA-DGR) : Not applicable

Transport by sea (IMDG) : Not applicable

14.5. Environmental hazards

Transport by road/rail (ADR/RID) : None.

Transport by air (ICAO-TI / IATA-DGR) : None.

Transport by sea (IMDG) : None.

14.6. Special precautions for user

Packing Instruction(s)

Transport by road/rail (ADR/RID) : P200

Transport by air (ICAO-TI / IATA-DGR)
 Passenger and Cargo Aircraft : Forbidden.

Cargo Aircraft only : 200.

Transport by sea (IMDG) : P200

Special transport precautions

: Avoid transport on vehicles where the load space is not separated from the driver's compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Before transporting product containers:

- Ensure there is adequate ventilation.
- Ensure that containers are firmly secured.
- Ensure valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

EU-Regulations

Restrictions on use : None.
Seveso Directive : 2012/18/EU (Seveso III) : Listed.

National regulations

Regulatory reference : Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

A CSA has been carried out.

SECTION 16: Other information

Indication of changes : Revised safety data sheet in accordance with commission regulation (EU) No 2015/830.

Abbreviations and acronyms : ATE - Acute Toxicity Estimate
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
EINECS - European Inventory of Existing Commercial Chemical Substances
CAS# - Chemical Abstract Service number
PPE - Personal Protection Equipment
LC50 - Lethal Concentration to 50 % of a test population
RMM - Risk Management Measures
PBT - Persistent, Bioaccumulative and Toxic
vPvB - Very Persistent and Very Bioaccumulative
STOT- SE : Specific Target Organ Toxicity - Single Exposure
CSA - Chemical Safety Assessment
EN - European Standard
UN - United Nations
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA - International Air Transport Association
IMDG code - International Maritime Dangerous Goods
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
WGK - Water Hazard Class
STOT - RE : Specific Target Organ Toxicity - Repeated Exposure
UFI : Unique Formula Identifier

Training advice : Ensure operators understand the flammability hazard.

Further information : Classification in accordance with the procedures and calculation methods of Regulation (EC) 1272/2008 (CLP).
Key literature references and sources of data are maintained in EIGA doc 169 : 'Classification and Labelling Guide', downloadable at <http://www.Eiga.eu> .

DISCLAIMER OF LIABILITY : Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going to press.
Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Annex to the safety data sheet

This Annex documents the Exposure Scenarios (ESs) related to the identified uses of the registered substance. The ESs detail protective measures for workers and the environment in addition to those described in sections 7, 8, 11, 12 and 13 of the SDS that are required to ensure that the potential exposure to workers and the environment remains within acceptable levels for each of the identified uses.

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1. EIGA105-1: Industrial uses, closed contained conditions

1.1. Title section

Industrial uses, closed contained conditions	
ES Ref.: EIGA105-1 Revision date: 04/04/2018	
Processes, tasks, activities covered	Industrial uses, including product transfers and associated laboratory activities within different closed or contained systems
Environment	Use descriptors
CS1	ERC2
Worker	Use descriptors
CS2	PROC1, PROC3, PROC8b, PROC9, PROC16
Assessment method	Qualitative approach used to conclude safe use

1.2. Conditions of use affecting exposure

1.2.1. Control of environmental exposure: ERC2

ERC2	Formulation into mixture
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Product (article) characteristics	
Physical form of product	See section 9 of the SDS, No additional information
Concentration of substance in product	≤ 100 %

Amount used, frequency and duration of use (or from service life)	
The actual tonnage handled per site is not considered to influence the immissions as such for this scenario as there is practically no release	
Emission Days (days/year)	260

Technical and organisational conditions and measures	
Ensure operatives are trained to minimise releases	

Conditions and measures related to sewage treatment plant	
Wastewater emission controls are not applicable as there is no direct release to wastewater	

Exposure scenario

Annex to the safety data sheet

Propylene

Reference number: 105

CAS-No.: 115-07-1 Product form: Substance Physical state: Gas

Conditions and measures related to treatment of waste (including article waste)

See section 13 of the SDS

Other conditions affecting environmental exposure

No additional information

1.2.2. Control of worker exposure: PROC1, PROC3, PROC8b, PROC9, PROC16

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC16	Use of fuels

Product (article) characteristics

Physical form of product	See section 9 of the SDS, No additional information
Concentration of substance in product	≤ 100 %

Amount used (or contained in articles), frequency and duration of use/exposure

The actual tonnage handled per shift is not considered to influence the exposure as such for this scenario. Instead, the combination of the scale of operation and level of containment/automation (as reflected in the technical conditions) is the main determinant of the process-intrinsic emission potential.

Exposure duration	≤ 8 h/day
Covers frequency up to:	5 days/week

Technical and organisational conditions and measures

See sections 2 and 7 of the SDS.	
Handle product within a closed system	
Apply a good standard of general or controlled ventilation when maintenance activities are carried out.	
Ensure operatives are trained to minimise exposure	
Ensure supervision is in place to check that the RMMs are in place and are being used correctly and that the OCs are being followed	

Conditions and measures related to personal protection, hygiene and health evaluation

See section 8 of the SDS.

Exposure scenario

Annex to the safety data sheet

Propylene

Reference number: 105

CAS-No.: 115-07-1 Product form: Substance Physical state: Gas

Other conditions affecting workers exposure

Indoor or outdoor use	
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1.3. Exposure estimation and reference to its source

1.3.1. Environmental release and exposure: ERC2

1.3.2. Worker exposure: PROC1, PROC3, PROC8b, PROC9, PROC16

1.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

1.4.1. Environment

Guidance - Environment	Check that RMMs and OCs are as described above or of equivalent efficiency
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1.4.2. Health

Guidance - Health	Check that RMMs and OCs are as described above or of equivalent efficiency
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Exposure scenario

Annex to the safety data sheet

Propylene

Reference number: 105

CAS-No.: 115-07-1 Product form: Substance Physical state: Gas

2. EIGA105-2: Professional use, closed contained conditions

2.1. Title section

Professional use, closed contained conditions

 ES Ref.: EIGA105-2
 Revision date: 04/04/2018

Processes, tasks, activities covered	Professional uses, including transfer of product in non-industrial settings
Environment	Use descriptors
CS1	ERC9b
Worker	Use descriptors
CS2	PROC8a, PROC16
Assessment method	Qualitative approach used to conclude safe use

2.2. Conditions of use affecting exposure

2.2.1. Control of environmental exposure: ERC9b

ERC9b	Widespread use of functional fluid (outdoor)
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Product (article) characteristics	
Physical form of product	See section 9 of the SDS, No additional information
Concentration of substance in product	≤ 100 %

Amount used, frequency and duration of use (or from service life)	
The actual tonnage handled per site is not considered to influence the immissions as such for this scenario as there is practically no release	
Emission Days (days/year)	260

Technical and organisational conditions and measures	
Ensure operatives are trained to minimise releases	

Conditions and measures related to sewage treatment plant	
Wastewater emission controls are not applicable as there is no direct release to wastewater	

Exposure scenario

Annex to the safety data sheet

Propylene

Reference number: 105

CAS-No.: 115-07-1 Product form: Substance Physical state: Gas

Conditions and measures related to treatment of waste (including article waste)

See section 13 of the SDS

Other conditions affecting environmental exposure

No additional information

2.2.2. Control of worker exposure: PROC8a, PROC16

PROC8a

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC16

Use of fuels

Product (article) characteristics

Physical form of product

See section 9 of the SDS, No additional information

Concentration of substance in product

≤ 100 %

Amount used (or contained in articles), frequency and duration of use/exposure

The actual tonnage handled per shift is not considered to influence the exposure as such for this scenario. Instead, the combination of the scale of operation and level of containment/automation (as reflected in the technical conditions) is the main determinant of the process-intrinsic emission potential.

Exposure duration

≤ 8 h/day

Covers frequency up to:

5 days/week

Technical and organisational conditions and measures

See sections 2 and 7 of the SDS.

Handle product within a closed system

Apply a good standard of general or controlled ventilation when maintenance activities are carried out.

Ensure operatives are trained to minimise exposure

Ensure supervision is in place to check that the RMMs are in place and are being used correctly and that the OCs are being followed

Conditions and measures related to personal protection, hygiene and health evaluation

See section 8 of the SDS.

Other conditions affecting workers exposure

Outdoor use

Exposure scenario

Annex to the safety data sheet

Propylene

Reference number: 105

CAS-No.: 115-07-1 Product form: Substance Physical state: Gas

2.3. Exposure estimation and reference to its source

2.3.1. Environmental release and exposure: ERC9b

2.3.2. Worker exposure: PROC8a, PROC16

2.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

2.4.1. Environment

Guidance - Environment	Check that RMMs and OCs are as described above or of equivalent efficiency
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2.4.2. Health

Guidance - Health	Check that RMMs and OCs are as described above or of equivalent efficiency
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End of document