

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **ISORYL** (Flame retardant and industrial grades)

Creation date: **15.12.2015**

Revision: **17.12.2015**

Version: **1**

Section 1. Identification of the substance/preparation and of the company/undertaking

1.1. Identification of the substance/preparation

Product name

ISORYL (Flame retardant and industrial grades)

1.2. Use of the substance/preparation

Use

The list of products that are covered by this safety data sheet can be found in the appendix on the last page.

USE: Synthetic polymer based on polypropylene with dispersed fillers, additives and colourants, used only in the industrial activities of injection moulding and extrusion.

Sector of use: SU 12 Manufacture of plastics products, including compounding and conversion.

Product category: PC 32 Polymer preparations and compounds.

Process category: PROC 14 Production of preparations or articles by tableting, compression, extrusion, pelletisation.

Uses advised against

No other uses are known or allowed for this product.

1.3. Company/undertaking identification

Manufacturer

Manufacturer

- Sirmax spa - via Dell'Artigianato, 42 Cittadella (PD), IT
- Sirmax spa -Via Decime, 10 Tombolo (PD), IT
- Sirmax Polska Sp. z o.o. 99-300 Kutno - ul. Holenderska 8 – PL

1.4. Emergency telephone

Emergency

112

Supplier

+39 (0)49 944 11 11

Section 2. Hazards identification

2.1. Classification of substance/preparation:

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Classification according to Reg. 1272/2008

Aquatic Harmful to aquatic life with long lasting effects.
Chronic 3;
H412

2.2. Label elements :

2.2.1. Symbol letter(s):

No information

H412 Harmful to aquatic life with long lasting effects.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local regulation.

2.2.2. Contains:

-

2.2.3. Special provisions:

Special hazards are not known or expected.

2.3. Other hazards:

The molten product adheres to the skin and causes burns.
High risk of slipping due to leakage/spillage of product.
Possible production of electrostatic chargings when used
The working steams can irritate the eyes as well as the respiratory tract.

Section 3. Composition/information on ingredients

Product description

PPO (polyphenylene ether (CAS 25134-01-4), with high impact polystyrene (CAS 9003-55-8)
Dispersed additives, not dangerous.
Glass fiber only for the reinforced grades (GF).
Colourants and pigments, (only for coloured versions).

3.1. Substances

For mixtures see 3.2.

3.2. Mixtures

Chemical name	CAS, EC, Index	%	Classification according to Regulation (EC) No 1272/2008 [CLP]	REACH reg. number
4,4'-(Isopropylidenediphenyl)	5945-33-5	5-10	Aquatic Chronic 4; H413	-

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bis(diphenyl phosphate)	- -			
Triphenyl phosphate	115-86-6 204-112-2 -	0,1-1	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	-

Section 4. First aid measures

4.1. First-aid measures

General measures

At room temperature the product is neither an irritant nor gives off hazardous vapours. The measures listed below apply to critical situations (Fire, incorrect process conditions).

-

Inhalation

Remove patient to fresh air-move out of dangerous area. Obtain professional medical help! Victim should rest in a warm place. If breathing is irregular or respiratory arrest provide artificial respiration.

Skin contact

After contact with molten product, cool rapidly with cold water. Do not attempt to remove molten product from skin because skin will tear easily. Consult a physician.

Eye contact

Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. If irritation persists, seek professional medical attention.

Ingestion

In case of doubt or if feeling unwell seek medical help.

4.2. Symptoms

Inhalation

Vapours and gases of the product, generated at high temperature can have an irritant effect to breathing apparatus.

Skin contact

-

Eye contact

Vapours and gases of the product, generated at high temperature can have an irritant effect to the eyes

Ingestion

-

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

-

Section 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

-

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can generate; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂). Water

5.3. Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137) .

Section 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition.

6.1.2. For emergency responders

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High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

-

6.3.2. For cleaning up

Take up mechanically and collect in suitable container and dispose according to current regulations.

6.3.3. Other information

-

6.4. Reference to other sections

See also sections 8 and 13.

Section 7. Handling and storage

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation. Take precautionary measures against explosion risks, as all types of polymers may develop dust during transporting or grinding of granules. Take precautionary measures against static discharges. Ensure adequate equipment grounding.

Measures to prevent aerosol and dust generation

Prevent dusting.

Measures to protect the environment

-

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe dust. When bringing the material to processing temperatures gases might develop, forming: hydrocarbons of low molecular weight and their oxidation products, residual solvents, traces of aldehydes, acids.

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Provide appropriate ventilation for such processing conditions. Do not overpass the suggested process conditions (temperatures), since the released gases are dangerous.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Keep in cool and well ventilated area. Keep in a dry place. Take precautionary measures against static discharges. Ground equipment electrically. Electric safety equipment. Keep away from sources of ignition - No smoking. Protect against heat and direct sunlight. Keep away from food, drink and animal feedingstuffs Storage in a warm place (>60°C) can cause softening of the granules and instability of the bags. Do not stack the big bags or the octabins or the platforms.

7.2.2. Packaging materials

Store the product in bags, autosilos, container, or large cartons.

7.2.3. Requirements for storage rooms and vessels

-

7.2.4. Storage class

-

7.2.5. Further information on storage conditions

-

7.3. Specific end use(s)

Recommendations

-

Industrial sector specific solutions

-

Section 8. Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational Exposure limit values

Chemical name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m3 (ppm)	mg/m3	ml/m3 (ppm)	mg/m3		
Triphenyl phosphate (115-86-6)	-	3	-	6		

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Product	50	192	100	384	toluene (CAS 208- 88-3)	
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Exposure limit values (IUCLID)

No information

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

8.1.3. DNEL values

No information

8.1.4. PNEC values

No information

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid the formations-when purging the press-of great agglomerates of molten material. Since the product has a low thermal conductivity, it solidifies quite quickly externally, while the inner part remains molten, at high temperature for prolonged times. This could be the cause for thermal degradation. Always wait for the complete solidification and cooling of the material coming from the press purges before handling them. Solidification in air is slow. Do not underestimate that the inner part stay molten for long times, so do not crash the purged agglomerates. Molten product spill is possible.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in the area with increased concentration. Provide system for collecting the vapours which are created during the working process.

8.2.2. Personal protective equipment

Eye and face protection

No requirements under normal use conditions.

Hand protection

Thermoinsulating gloves (EN 407).

Skin protection

Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345).

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Respiratory protection

Molten product: In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2.

Thermal hazards

-

8.2.3. Environmental exposure controls

-

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

- Physical state: solid; granules
- Colour: according to specification
- Odour: None

Important health, safety and environmental information

-	pH	No information
-	Melting point	255 – 270 °C
-	Boiling point/boiling range	No information
-	Flashpoint	No information
-	Evaporation rate	No information
-	Ignition temperature	> 490 °C
-	Explosion limits (vol%)	No information
-	Vapour pressure	No information
-	Vapour density	No information
-	Density	Density: 1,05 – 1,4 g/cm ³ at 23 °C
-	Solubility	Water: Insoluble
-	Partition coefficient n-octanol/water (log Kow)	No information
-	Auto-ignition temperature	No information
-	Decomposition temperature	> 350 °C
-	Viscosity	No information
-	Explosive properties	Product is not explosive.
-	Oxidising properties	No information

9.2. Other information

-	Remarks:	
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Section 10. STABILITY AND REACTIVITY

10.1. Reactivity

-

10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

10.3. Possibility of hazardous reactions

-

10.4. Conditions to avoid

The product is stable at normal handling, storage and process conditions. Decomposition begins at temperatures higher than 300°C.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

In case of fire/explosion vapours dangerous for health are spread. Traces: phenol, styrene, aliphatic amines, aldehydes, toluene, ethylbenzene and 4-vinylcyclohexene.

Section 11. Toxicological information

11.1. Information on toxicological effects

11.1.1. Acute toxicity

No information

11.1.2. Skin corrosion/irritation, serious eye damage/irritation, aspiration hazard

Additional information

The product is not classified as irritating to skin and eyes. Vapours and gases of the product, generated at high temperature can have an irritant effect to the eyes and the breathing apparatus.

11.1.3. Respiratory or skin sensitisation

Additional information

Not classified as sensitizing.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity

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Carcinogenicity

No information

(Germ cell) mutagenicity

No information

Reproductive toxicity

No information

Summary of evaluation of the CMR properties

No information

11.1.5. STOT-single and repeated exposure

No information

Section 12. Ecological information

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

Acute toxicity of ingredients (IUCLID)

No information

12.1.2. Chronic (long-term) toxicity

No information

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information

12.2.2. Biodegradation

No information

12.3. Bioaccumulative potential

12.3.1. Partition coefficient n-octanol/water (log Kow)

No information

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12.3.2. Bioconcentration factor (BCF)

No information

12.4. Mobility

12.4.1. Known or predicted distribution to environmental compartments

No information

12.4.2. Surface tension

No information

12.4.3. Adsorption/Desorption

No information

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information

12.7. Additional information

For product

The product is not toxic, but small particles can have physical effects in aquatic and soil organisms.

Not biodegradable.

No bioaccumulation potential

Floats on water.

Avoid release to the environment.

Section 13. Disposal considerations

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Disposal must be made according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste. Suitable for incineration in approved incinerators or appropriate, authorized disposal plants. Recycle or dispose according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste.

- Waste codes / waste designations according to LoW

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07 02 13 - waste plastic

Packaging

Completely emptied container dispose according to regulations.

13.1.2. Waste treatment-relevant information

-

13.1.3. Sewage disposal-relevant information

-

13.1.4. Other disposal recommendations

-

Section 14. Transport information

14.1. UN number

not applicable

14.2. UN proper shipping name

Not dangerous according to transport regulations.

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

NO

14.6. Special precautions for user

not applicable

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

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Section 15. Regulatory information

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16. Other information

Indication of changes

-

Key literature references and sources for data

-

List of relevant H phrases

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

ANNEX: Alphabetical list of materials to whom this document is applicable

190017 ISORYL A 105 V0 GR0358

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- 190005 ISORYL A 120 GF0 V0 BK
- 190008 ISORYL A 120 GF0 V0 GR0578
- 190003 ISORYL A 120 GF0 V0 GR0848
- 190029 ISORYL A 120 GF0 V0 GR0984
- 190030 ISORYL A 120 V0 BK
- 190001 ISORYL A 120 V0 GR0613
- 190022 ISORYL A 120 V0 GR0653
- 190025 ISORYL A 2070 GF20 V0 GR0577
- 190016 ISORYL A 2075 GF20 V0 BK