MATERIAL SAFETY DATA SHEET

Polypropylene 3D Primer

1. Product and company identification

1.1. Trade name

Polypropylene 3D Primer

1.2. Company details

Recreus Industries S.L.
C/El Envelope, F13-F14. Pol. Ind. Finca Lacy
03600, Elda, (Alicante) - Spain
(0034) 865 777 966
info@recreus.com
www.recreus.com

1.3. Relevant identified uses of the mixture and uses advised against

Uses: Adhesion promoter for polypropylene in 3D printing.

Restrictions on use: None known.

1.4. Emergency telephone number

Emergency telephone number: (0034) 965 385 741 (during office hours). Spain.

National Institute of Toxicology in Spain: (0034) 915 620 420.

2. Hazards identification

2.1 Classification of the substance or mixture:

Classification according to regulation 1272/2008/EC:

Flammable liquids, Category 3	H226: Liquids and flammable vapors.
Acute toxicity, Category 4	H332: Harmful in case of inhalation.
Acute toxicity, Category 4	H312: Harmful in contact with skin.

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific toxicity in certain organs - single exposure, Category 3	H335: It can irritate the respiratory tract.
Specific toxicity in certain organs - repeated exposures, Category 2	H373: May cause organ damage after prolonged or repeated exposures.

2.2 Label elements:

Labeling (1272/2008/EC):

Hazard pictograms:

Signal words: Attention

Hazard statements:

H 226	Liquids and flammable vapors.
H312 + H332	Harmful in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation..
H335	It can irritate the respiratory tract.
H373	May cause organ damage after prolonged or repeated exposures.

Precautionary advice:

P 210 Keep away from heat, hot surfaces and any other ignition source. No Smoking.

P 260 Do not breathe mist or vapor.

P 280 Wear protective gloves/goggles/mask.

P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse the skin with water/showering.

P304 + P340 + P312 IN CASE OF INHALATION: Transport person to air free and keep it in a position that facilitates breathing. Call a POISON CENTER/doctor if the person is unwell.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.

Dangerous supplemental characteristics and identification elements: None known.

2.3 Other hazards:

No additional danger when handled properly. This substance/mixture does not contain any components that are considered to be either bioaccumulative and persistent toxic (PBT) or very bioaccumulative and very persistent (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients

3.1 General description: Chlorinated polyolefin in solvent mixture.

3.2 Component declaration:

Hazardous components:

Name	Identifiers	Concentration % weight	(*) Classification EC regulation 1272/2008
Xylene	CAS: 1330-20-7 EINECS: 215-535-7 Index: 601-022-00-9	20 - 40	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 STOT SE 3; H335 Eye Irrit. 2A; H319 STOT RE 2; H373 Asp. Tox. 1; H304
Ethyl acetate	CAS: 141-78-6 EINECS: 205-500-4 Index: 607-022-00-5	20 - 40	Flam. Liq. 3; H226 Eye Irrit. 2A; H319 STOT SE 3; H335
Acetate of butilo	CAS: 123-86-4 EINECS: 204-658-1 Index: 607-025-00-1	20 - 40	Flam. Liq. 3; H226 STOT SE 3; H335
Modified Chlorinated Polyolefin	CAS: 68609-36-9 EINECS: Index:	10 - 20	----------

Ethylbenzene	CAS: 100-41-4 EINECS: 202-849-4 Index: 601-023-004	1 - 10	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304
Chlorobenzene	CAS: 108-90-7 EINECS: 203-628-5 Index:	< 1	Flam. Liq. 3; H226 Acute Tox. 4; H332 Aquatic Chronic; H411
Epoxidized oil	CAS: 61789-01-3 EINECS: 263-024-2 Index:	< 1	----------

(*) The full text of the H phrases is detailed in section 16 of this Safety Data Sheet.

4. First aid measures

If in doubt, or when symptoms of discomfort persist, seek medical attention. Never give anything by mouth to people who are unconscious.

4.1 Description of first aid measures

- **Inhalation:** Place the injured person outdoors, keep him warm and at rest, if breathing is irregular or stops, practice artificial respiration. Do not administer anything oral way. If he is unconscious, put him in a suitable position and seek medical help.
- **Contact eyes:** Flush eyes thoroughly with clean, fresh water for at least 10 minutes, pulling up on eyelids, and seek medical attention.
- **Contact skin:** Remove contaminated clothing. Wash the skin vigorously with soap and water or a suitable skin cleanser. NEVER use solvents or thinners.
- **Ingestion:** Immediately seek medical attention. Keep you at rest. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Risks:

- Harmful in contact with skin or if inhaled.
- Causes skin irritation.
- It causes irritation of the eye grave.
- May cause organ damage after prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: In case of fire extinguishing powder or CO2. In case of fire more graves also foam and water spray.

Unsuitable extinguishing media: Do not use high pressure water jet for extinction.

5.2. Special hazards arising from the substance or mixture

Specific hazards during fire fighting: Water may have no effect. The product could float in water and can be reactivated in surface water.

Hazardous Combustion Products: No dangerous combustion products are known.

5.3. Advice for firefighters:

In fire fighting, respiratory protection equipment with autonomous air supply and full chemical protection suit is required.

Avoid contaminating extinguishing water from contacting the ground or mixing with ground and surface waters.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures. Wear protective clothing (see section 8). Provide sufficient aeration/air renewal. Keep outsiders away. Local authorities should be informed if major spills cannot be contained.

6.2. Environmental precautions. Avoid contact with surface water, sewage and soil.

6.3 Methods and material for containment and cleaning up. Contain the spill, soak it with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer it to a container for disposal according to local/national regulations (see section 13). After cleaning, remove traces with water. Eliminate all sources of ignition if there is no danger in doing so.

6.4 Reference to other sections. For exposure control and individual protection measures, see section 8. For waste disposal, follow the recommendations in section 13.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, as well as inhalation of vapors.

Stay away from food and condiments. Before breaks and after finishing work, wash your hands and use a good skin cream. Keep work clothes separate from the rest of the locker room. Remove contaminated clothing.

Keep away from fire, sparks and hot surfaces.

7.2 Conditions for safe storage, including any incompatibilities

Store closed containers in a dry, cool and well-ventilated place.

Recommended storage temperature: 10 C - 30 C.

7.3 Specific end use(s)

Recommendations. This product should only be used for industrial applications and professional use.

Specific solutions for the industrial sector. No additional information.

8. Exposure controls/personal protection

8.1 Control parameters

Components with occupational exposure environmental limit values:

Components	No. CAS	Value type (Form of exposure)	Control parameters	Base
Xylene	1330-20-7	VLA-ED	50 ppm 221 mg/m3	ES VLA
		VLA-EC	200 ppm 884 mg/m3	ES VLA
Ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	2000/39/EC
		STEL	200 ppm 884 mg/m3	2000/39/EC
		VLA-ED	100 pm 441 mg/m3	ES VLA
		VLA-EC	200 ppm 884 mg/m3	ES VLA

Chlorobenzene	108-90-7	TWA	5 ppm 23 mg/m3	2006/15/EC
		STEL	15 ppm 70 mg/m3	2006/315/EC
		VLA-EC	15 ppm 70 mg/m3	ES VLA
		VLA-ED	5 ppm 23 mg/m3	ES VLA

Derived no effect level (DNEL) according to Regulation (EC) No. 1907/2006:

Name of the substance	End use	Exposure route	Potential health effects	Value
Xylene	Workers	Inhalation	Short-term exposure, Systemic effects	289 mg/m3
	Workers	Inhalation	Short-term exposure, local effects	289 mg/m3
	Workers	Skin contact	Long-term exposure, Systemic effects	180 mg/kg pc/día
	Workers	Inhalation	Long-term exposure, Systemic effects	77 mg/m3

Predicted concentration without effect (PNEC) according to Regulation (EC) No. 1907/2006:

Name of the substance	Environmental Compartment	Value
Xylene	Water	0,327 mg/l
	Sea water	0,327 mg/l
	Intermittent waters	0,327 mg/l
	Freshwater sediment	12.46 mg/Kg

8.2 Exposure control

Technical measures

Provide adequate ventilation, which can be achieved by good local exhaust-ventilation and a good general exhaust system.

Respiratory protection

In insufficiently ventilated workplaces, it is necessary to use adequate respiratory protection.

In case of hypersensitivity of the respiratory tract and the skin (asthma, chronic bronchitis, chronic skin disease) handling this product is not recommended.

Protection of hands

PPE: Protective gloves. Characteristics: CE category II marking. CEN standards: EN-3741, EN-3742, EN-3743, EN-420.

Gloves should be the right size, fit your hands without being too tight or too loose. They should always be used with clean and dry hands.

Protective creams can help protect the skin. These creams should NEVER be applied once the product has been exposed to the skin.

Eye protection

PPE: Face screen. Characteristics: CE category II marking. Eye and face protection against liquid splashes. CEN standards: EN-165, EN-166, EN-167, EN-168.

Use protective glasses, specially designed to protect against liquid splashes. Install emergency eyewash near the area of use.

Skin care

PPE: Protective clothing. Characteristics: CE category II marking. CEN standards: EN-340.

Wear suitable protective clothing. It should not be narrow or loose so that it does not negatively interfere with the user's movements.

All parts of the body that have been in contact with the preparation should be washed.

PPE: Work footwear. Characteristics: CE category II marking. CEN standards: EN ISO 13287, EN 20347.

Work shoes for professional use incorporate protection elements designed to protect the user from injuries that could cause accidents.

General measures of protection and hygiene

Keep the product away from food.

Do not eat, drink or smoke during work.

Wash your hands before breaks and at the end of work.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Liquid
Odour:	Aromatic
Colour:	Ambar

pH:	N/A
Boiling Point (°C):	138-140°C a 1.013 hPa
Melting point (°C):	Undetermined
Flash point:	27°C approx.
Evaporation Rate:	Undetermined
Properties Flammable/Explosive:	N/A
Vapor density:	3.7
Density:	0.90 g/cm3 at 25°C
Miscibility with water:	Immiscible at 25 ° C
Surface tension:	Undetermined
Partition coefficient (n−octanol/water):	Undetermined
Viscosity, dynamic:	20-50 mPa.s at 23°C
Explosive properties:	Undetermined
Dust explosion class:	N/A
Oxidizing properties	Undetermined

9.2 Other information

Fat solubility:	Undetermined
Solubility in water:	Negligible
VOC content (% weight):	Approx. 90%
VOC content (weight / volume):	Approx. 91 g/liter

The indicated values do not always coincide with the product specifications.

The data corresponding to the product specifications can be found in the technical data sheet.

10. Stability and reactivity

Reactivity: Stable

Chemical stability: Stable under recommended handling and storage conditions. See section 7.

Possibility of hazardous reactions: Stable.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Materials to avoid: Strong oxidizing agents.

Hazardous decomposition products: Carbon monoxide, Carbon dioxide (CO2), hydrochloric acid, Chlorinated compounds.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity.
Harmful in case of inhalation.
Product:
Acute inhalation toxicity: Acute toxicity estimate: 14.82 mg/l
Exposure time: 4 h
Atmosphere test: vapor Method: Calculation method.
Acute dermal toxicity:
Acute toxicity estimate: 1,897 mg / kg
Method: Calculation method
Components:
Xylene:
Acute oral toxicity: Oral LD50 (Rat, male): 3,523 mg/kg
Ethylbenzene:
Acute oral toxicity: LD50 Oral (Rat): 3,500 mg/kg
Acute inhalation toxicity: LC50 (Rat): 17 mg/l Exposure time: 4 h
Acute dermal toxicity: Dermal LD50 (Rabbit): 15,400 mg/kg
Chlorobenzene:
Acute oral toxicity: LD50 Oral (Rat): 2,262 mg/kg
Acute inhalation toxicity: LC50 (Rat): 29.7 mg/l Exposure time: 4 h
Acute dermal toxicity: Dermal LD50 (Guinea pig):> 20,000 mg/kg

Skin corrosion or irritation.
Causes skin irritation.
Components:
Xylene:
Species: Rabbit Exposure time: 24 h Result: light
Ethylbenzene:
Species: Rabbit Exposure time: 24 h Result: light

Chlorobenzene:
Species: Guinea pig Exposure time: 24 h Result: light

Serious eye damage or irritation.
Causes serious eye irritation.
Components:
Xylene:
Species: Rabbit Exposure time: 24 h Result: Serious irritation Observations: Causes serious eye irritation.
Ethylbenzene:
Species: Rabbit Result: moderate to strong.
Chlorobenzene:
Species: Rabbit Result: light.

Respiratory or skin sensitization.
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.
Product:
Observations: No data available.
Components:
Xylene:
Test Type: OECD 429: Local Lymph Node Assay (LLNA) Species: Mouse Result: Non-sensitizing.
Ethylbenzene:
Test Type: Skin Sensitization Result: Non-sensitizer.
Chlorobenzene:
Test Type: Skin Sensitization Species: Guinea pig Result: Non sensitizer.

Germ cell mutagenicity.
It is not classified based on available information.
Components:
Xylene:
Genotoxicity in vitro: Test Type: Salmonella typhimurium test (Ames test) Metabolic activation: +/- activation Method: Bacterial Reverse Mutation Assay Result: negative Genotoxicity in vivo: Species: Rat Application route: intraperitoneal injection Method: Genetic toxicology : Rodent-dominant lethal mutation test Result: negative.
Chlorobenzene:
Genotoxicity in vitro: Test Type: Mutagenicity - bacterial Metabolic activation: +/- activation Method: Bacterial Reverse Mutation Assay Result: negative Observations: Published study: Test Type: Mutagenicity - mammals Metabolic activation: +/- activation Method: In vitro Mammalian Chromosome Aberration Test Result: negative Observations: Published study: Test Type: Mutagenicity - mammals Metabolic

activation: +/- activation Method: Genetic Toxicity: In vitro test for sister chromatid exchange in mammalian cells Result: negative Observations: Published study Genotoxicity in vivo: Species: Drosophila melanogaster Method: Genetic Toxicology: Sex-Linked Recessive Lethal Test in Drosophila melanogaster Result: negative Observations: Published study.

Carcinogenicity.
It is not classified based on available information.
Product Observations: This information is not available.

Reproductive toxicity.
It is not classified based on available information.
Product:
Effects on fertility: Observations: No data available.
Components:
Chlorobenzene:
Effects on fertility: Test Type: Two-generation reproductive toxicity test Species: Rat Sex: Male and Female NOAEL: 2,106 mg / l, F1: 2,106 mg / l, F2: 2,106 mg / l, Method: Test OECD No. 416: Reproduction toxicity study in two generations Observations: Published study Effects on fetal development: Species: Rat, Male and Female Method: OECD Test No. 414: Prenatal development toxicity study Observations: Published study

Specific target organ toxicity (STOT) - single exposure
It can irritate the respiratory tract.
Product:
Observations: No data available.
Components:
Xylene:
Target organs: irritation of the respiratory tract.
Ethylbenzene:
Route of exposure: Inhalation Target organs: Narcotic effects.
Chlorobenzene:
Route of Exposure: Inhalation Target Organs: Narcotic Effects

Specific target organ toxicity (STOT) - repeated exposure
It can cause damage to organs (hearing organs) after prolonged or repeated exposures.
Product:
Observations: No data available
Components:
Xylene:
Target Organs: Auditory System.

Chlorobenzene:
Exposure route: Oral Assessment: Based on available data, the classification criteria are not met.

Repeated dose toxicity.
Components:
Xylene:
Species: Rat, Male and Female NOAEL: 250 mg / kg Route of application: Oral study Species: Rat, male NOAEC: 3515 mg / m^3 Route of application: Inhalation.
Chlorobenzene:
Species: Rat, Male and Female NOAEL: 120 mg / kg Method: OECD Test No. 451: Carcinogenicity studies Observations: Published study Species: Rat, Male and Female 235 mg / m^3 Method: OECD Test No. 416: Toxicity study for reproduction in two generations Observations: Study published

Aspiration toxicity.
It can be fatal if swallowed and enters the airways.
Product:
No aspiration toxicity classification.
Components:
Xylene:
It can be fatal if swallowed and enters the airways.
Ethylbenzene:
It can be fatal if swallowed and enters the airways.
Chlorobenzene:
May be harmful if swallowed and enters airways.

Experience with exposure of human beings.
Product:
Inhalation:
Observations: None known.
Skin contact:
Observations: Causes skin irritation.
Eye contact:
Observations: None known.
Ingestion:
Observations: May cause organ damage after prolonged or repeated exposures.

Other product data.
Observations: None known.

12. Ecological information

Avoid contact with surface water, sewage and soil. No information is available regarding the ecotoxicity of the preparation. Below we present data related to the components:

12.1 Toxicity:
Components:
Xylene:
Fish toxicity: LC50 (Oncorhynchus mykiss (rainbow trout)): 2.6 mg/l Exposure time: 96 h
Observations: Extrapolation of a similar material.
Toxicity for the daphnias and other aquatic invertebrates:
EC50 (Daphnia magna (Large Sea Flea)):> 3.4 mg/l Exposure time: 24 h
Algae toxicity:
EC50 (Selenastrum capricornutum): 2.2 mg/l Exposure time: 72 h NOEC: (Selenastrum capricornutum): 0.44 mg/l Exposure time: 72 h
Fish Toxicity (Chronic Toxicity):
NOEC:> 1.3 mg/l Exposure time: 56 d Species: Oncorhynchus mykiss (rainbow trout)
GLP: no Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
NOEC: 0.96 mg/l Exposure time: 7 d Species: Daphnia magna (Large Sea Flea)
Ethylbenzene:
Fish toxicity: LC50 (Cyprinodon variegatus): 275 mg/l Exposure time: 96 h CL50 (Pimephales promelas (fathead minnow)): 42.3 - 48.5 mg/l Exposure time: 96 h LC50 (Poecilia reticulata (Guppi)): 97.1 mg/l Exposure time: 96 h
Chlorobenzene:
Fish toxicity: LC50 (gold fish): 73.03 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 (oleander): 4.3 mg/l Exposure time: 48 h
Fish toxicity (Chronic toxicity): NOEC: 4.8 mg/l Exposure time: 28 d Species: Danio rerio (zebrafish) Observations: Published study
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0.32 mg/l Exposure time: 16 d Species: Daphnia magna (Large sea flea) Observations: Published study

12.2 Persistence and degradability:

Components:
Xylene:
Biodegradability: Result: Readily biodegradable.
Ethylbenzene:
Biodegradability: Result: Readily biodegradable.
Chlorobenzene:
Biochemical oxygen demand (BOD): BOD-5: 30 mg/g

Chemical oxygen demand (COD): 410 mg/g
BOD/COD: BOD/COD: 7.32%
ThOD: 2,060 mg/g

12.3 Bioaccumulative potential:
Components:
Xylene:
Bioaccumulation: Bioconcentration factor (BCF): 7.4 - 18.5
Ethylbenzene: N Octanol/water partition coefficient: log Pow: 3.15

12.4 Mobility in soil:
Components:
Ethylbenzene:
Distribution between environmental compartments: log Koc: 3.12
Chlorobenzene:
Distribution between environmental compartments: log Koc: 2.4

12.5 Results of PBT and vPvB assessment:
Product:
Assessment: This substance/mixture does not contain components that are considered to be bioaccumulative and persistent toxic (PBT) or very bioaccumulative and very persistent (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:
No data available.

13. Disposal considerations

Delete in accordance with international, national and local laws, provisions and regulations in this regard. For disposal within the EU, the corresponding waste code from the European Waste Catalog (CER) must be used.

13.1. Waste treatment methods

Mix with less flammable compatible chemical and incinerate. Since empty containers still contain product residue, observe label warnings even after emptying container. Residual vapors can explode if ignited. Do not cut, drill, sand, or weld on or near this container.

14. Transport information

14.1 UN number

RID: UN 1139
ADR: UN 1139
IMDG: UN 1139
IATA: UN 1139

14.2 UN proper shipping name

RID: SOLUTIONS FOR COATINGS
ADR: SOLUTIONS FOR COATINGS
IMDG: COATING SOLUTION
IATA: COATING SOLUTION

14.3 Transport hazard class (es)

RID: 3
ADR: 3
IMD: 3
IATA: 3

14.4 Packing group

RID
Packing group: III
Classification Code: F1
Hazard Identification Number: 30
Tags: 3
ADR
Packing group: III
Classification Code: F1
Hazard Identification Number: 30
Tags: 3
Tunnel restriction code: (D / E)
Special Provisions: Particular provision 640E
IMDG
Packing group: III
Tags: 3
EmS Code: F-E, S-E
IATA
Packing instruction (cargo plane): 366
Packing instruction (passenger plane): 355
Packing Instruction (LQ): Y344

Packing group: III
Tags: Flammable Liquids.

14.5 Environmental hazards

RID
Environmentally hazardous: no
ADR
Environmentally hazardous: no
IMDG
Marine pollutant: no

14.6 Special precautions for users

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

Not applicable to the supplied product.

15. Regulatory information

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

REACH - List of candidate substances of particular concern for Authorization (article 59). : Not applicable.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer: Not applicable.

Regulation (EC) No. 850/2004 on persistent organic pollutants: Not applicable.

Seveso III: Directive 2012/18 / EU of the European Parliament and of the Council on the control of risks inherent in serious accidents involving dangerous substances.

	Quantity 1	Quantity 2
P5c FLAMMABLE LIQUIDS	5,000,000,000	50,000,000,000

Other regulations:

Consider Directive 92/85 / EEC on maternity protection or stricter national regulations,

where applicable.

Consider Directive 94/33 / EC on the protection of young people in the workplace or stricter national regulations, where appropriate.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

16. Other information

Full text of hazard warnings (H) referenced in sections 2 and 3 of the CLP classification (1272/2008/CE).

Full text of the H-Statements

H225: Highly flammable liquid and vapor.
H226: Flammable liquids and vapors.
H304: May be fatal if swallowed and enters airways.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May irritate the respiratory tract.
H373: May cause organ damage after prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects

Full text of other abbreviations

Acute Tox.: Acute toxicity
Aquatic Chronic: Chronic Aquatic Toxicity
Asp. Tox.: Aspiration hazard
Eye Irrit.: Eye irritation
Flam. Liq.: Flammable liquids
Skin Irrit.: Skin irritation
STOT RE: Specific target organ toxicity - repeated exposures
STOT SE: Specific target organ toxicity - single exposure

RID- European Agreement concerning the international transport of dangerous goods by rail;
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road;

AICS - Australian Inventory of Chemical Substances;
ASTM - American Society for Testing Materials;
bw - Body weight;
CLP - Regulation on classification, labeling and packaging; Regulation (EC) No. 1272/2008;
CMR - Carcinogenic, mutagenic or toxic for reproduction;
DIN - Norm of the German Institute for Standardization;
DSL - National List of Substances (Canada);
ECHA - European Agency for Chemical Substances;
EC-Number - European Community Number;
ECx - Concentration associated with response x%;
ELx - Load rate associated with response x%;
EmS - Emergency procedure;
ENCS - Existing and New Chemical Substances (Japan);
ErCx - Concentration associated with growth rate response x%;
GHS - Globally Harmonized System;
GLP - Good Laboratory Practice;
IARC - International Agency for Research on Cancer;
IATA - International Air Transport Association;
IBC - International Code for the construction and equipping of vessels that transport hazardous chemicals in bulk;
IC50 - Average maximum inhibitory concentration;
ICAO - International Civil Aviation Organization;
IECSC - Inventory of Chemical Substances in China;
IMDG - International Maritime Dangerous Goods Code;
IMO - International Maritime Organization;
SHL - Industrial Safety and Hygiene Law (Japan);
ISO - International Organization for Standardization;
KECI - Korean Existing Chemical Inventory;
LC50 - Lethal concentration for 50% of a test population;
LD50 - Lethal Dose for 50% of a Test Population (Median Lethal Dose);
MARPOL - International Convention to prevent Pollution at sea by ships;
us. - N.E.P.: Not specified elsewhere;
NO (A) EC - Concentration of effect (adverse) not observable;
NO (A) EL - Level of effect (adverse) not observable;
NOELR - Charge rate with no observable effect;
NZIoC - New Zealand Chemical Inventory;
OECD - Organization for Economic Cooperation and Development;
OPPTS - Office for Chemical Safety and Pollution Prevention;
PBT - Persistent, bioaccumulative and toxic substance;
PICCS - Philippine Inventory of Chemicals and Chemical Substances;
(Q) SAR - Structure-activity relationship (quantitative);
REACH - Regulation (EC) No 1907/2006 of the European Parliament and Council regarding

the registration, evaluation, authorization and restriction of chemicals;
RID - regulations on the international transport of dangerous goods by rail;
SADT - Self-accelerating decomposition temperature;
SDS - Safety Data Sheet; TCSI - Taiwan Inventory of Chemical Substances;
TRGS - Technical rule for dangerous substances;
TSCA - Toxic Substances Control Act (United States);
UN - United Nations;
vPvB - Very persistent and very bioaccumulative

Additional Information.

This version supersedes all previous versions.

Other data.

The information provided in this Safety Data Sheet is the most correct that we have at the date of its publication. The information provided is intended only as a guide for safety in handling, use, processing, storage, transportation, disposal and discharge, and should not be considered as a guarantee or quality specification. The information refers only to the specified material, and cannot be valid for said material, used in combination with other materials or in any process, unless indicated in the text. . It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established in the legislation.

Disclaimer

Is under responsibility of the 3d printer parts manufacturer or end user the compliance of the plastic object, for the specific use, with the overall migration limit, the specific migration limit and other restrictions. Do not hesitate to contact our technical service for explanations, advising and for any other need.