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

1.1 Product identifier

Trade name : TECHNYL 2411GF6 BLACK

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

Uses of the Substance / Mixture : Specific use(s): Manufacture of articles by injection and extrusion

Uses advised against:
Remarks : Not permitted in toys or part of toys, Medical devices, Do not use where contact with food or drinking water is possible.

1.3 Details of the supplier of the safety data sheet

Company : Solvay USA Inc.,
ENGINEERING PLASTICS
8 Cedar Brook Drive
Cranbury, NJ, 08512-7500, US
Telephone number: 855-454-9921

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Not a hazardous product according to Globally Harmonized System (GHS)

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Not a hazardous product according to Globally Harmonized System (GHS)

2.3 Other hazards which do not result in classification

On thermal decomposition (pyrolysis) releases:
toxic gases

SECTION 3: Composition/information on ingredients

3.1 Substance

Not applicable, this product is a mixture.

3.2 Mixture

Chemical nature : Product based on polyamide 6.6 (CAS: 32131-17-2)

Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Glass, oxide, chemicals	65997-17-3	30.3475 (30 - 40)
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	10081-67-1	0.2989 (0.1 - 0.3)

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Show this material safety data sheet to the doctor in attendance.
First responder needs to protect himself.

If inhaled : If breathed in, move person into fresh air.
Move to fresh air.
If symptoms persist, call a physician.

Skin contact : Cool skin rapidly with cold water after contact with molten polymer.
Do not peel solidified product off the skin.
Consult a physician if necessary.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Ingestion : Do NOT induce vomiting.
Rinse mouth with water.
Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Flash point	:	662 °F (350 °C)
Autoignition temperature	:	> 842 °F (> 450 °C)
Flammability / Explosive limit	:	no data available

5.1 Extinguishing media

Suitable extinguishing media	:	All extinguishing agents can be used.
Unsuitable extinguishing media	:	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Combustible product, melts on heating. Risk of fire spreading due to the flow of liquid that is already alight. Harmful or toxic vapors are released.

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
Specific fire fighting methods	:	Cool the molten product.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

no data available

6.2 Environmental precautions

Environmental precautions	:	Do not allow uncontrolled discharge of product into the environment. The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and materials for containment and cleaning up

Recovery	:	Sweep up and shovel.
Additional advice	:	Use mechanical handling equipment.

6.4 Reference to other sections

no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures	:	Ground/bond container and receiving equipment.
Advice on safe handling and usage	:	Ensure all equipment is electrically grounded before beginning transfer operations.
Hygiene measures	:	Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials: 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

7.2 Conditions for safe storage, including any incompatibilities

Technical Measures for storage	:	No special storage conditions required.

Storage conditions

Recommended	:	Protect from moisture. Store away from heat.
Incompatible products	:	Oxidizing materials.

Packaging Measures

Packaging materials—Recommended	:	Fiberboard, Paper bags
Packaging conditions	:	Paper bag lined with a plastic film., Cardboard container lined with a plastic film., Big-bag

Storage stability

Storage temperature	:	no data available

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

Introductory Remarks:
These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Ingredients with workplace control parameters

Ingredients	Value type	Value	Basis
Glass, oxide, chemicals	TWA	5 mg/m3	ACGIH
	Form of exposure : Inhalable fraction Upper Respiratory Tract irritation, Not classifiable as a human carcinogen		

8.2 Exposure controls

Control measures

Engineering measures : Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures :

Vapor extraction at source

Personal protective equipment

Hand protection : Wear suitable gloves.
When handling hot material, use heat resistant gloves.

Eye protection : Safety glasses

Hygiene measures : Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures : The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.

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 potential hazards, and/or risks that may occur during use.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Appearance	:	Form : pellets Physical state: solid Color: black
Odor	:	no data available
Odor Threshold	:	no data available
pH	:	no data available
Melting point/range	:	491 - 509 °F (255 - 265 °C)
Flash point	:	662 °F (350 °C)
Evaporation rate (Butylacetate = 1)	:	no data available
Flammability (solid, gas)	:	The product itself does not burn, but it is slightly oxidizing (active oxygen content ca. 2%).
Flammability / Explosive limit	:	no data available
Autoignition temperature	:	> 842 °F (> 450 °C)
Vapor pressure	:	no data available
Vapor density	:	no data available
Density	:	Relative density : 1.37
Solubility	:	Water solubility : insoluble Solubility in other solvents: common organic solvents : insoluble
Partition coefficient: n-octanol/water	:	no data available
Thermal decomposition	:	> 662 °F (> 350 °C)

Viscosity	:	no data available
Explosive properties	:	no data available
Oxidizing properties	:	no data available

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Chemical stability	:	Stable under normal conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Conditions to avoid	:	No dangerous reaction known under conditions of normal use.

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Decomposition products	:	On combustion or on thermal decomposition (pyrolysis), releases: highly toxic gases. (Carbon oxides (CO + CO2)). Nitrogen oxides (NOx) Hydrogen cyanide (hydrocyanic acid)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	:	According to the data on the components Not classified as harmful if swallowed According to the classification criteria for mixtures.
Acute inhalation toxicity	:	According to the data on the components Not classified as harmful by inhalation According to the classification criteria for mixtures.

Acute dermal toxicity	:	According to the data on the components Not classified as harmful by contact with skin According to the classification criteria for mixtures.
Acute toxicity (other routes of administration)	:	no data available

Skin corrosion/irritation

Skin irritation

Glass, oxide, chemicals	:	4 h - Rabbit No skin irritation Method: OECD Test Guideline 404 By analogy Information given is based on data obtained from similar substances. Unpublished reports
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	Rabbit No skin irritation Method: OECD Test Guideline 404 Unpublished reports

Serious eye damage/eye irritation

Eye irritation

Glass, oxide, chemicals	:	Humans No eye irritation By analogy Information given is based on data obtained from similar substances. Published data
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	Rabbit No eye irritation Method: OECD Test Guideline 405 Unpublished reports

Respiratory or skin sensitization

Sensitization	:	According to the data on the components Not classified as sensitizing by skin contact According to the classification criteria for mixtures.

Mutagenicity

Genotoxicity in vitro	:	No information available.
Genotoxicity in vivo	:	No information available.

Carcinogenicity

Carcinogenicity

Glass, oxide, chemicals :

No respirable material
No systemic effect expected

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA
ACGIH

Toxicity for reproduction and development

Toxicity to reproduction / fertility

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]- : Rat
Oral
NOEL parent: 50 mg/kg
NOEL F1: 50 mg/kg
Method: OECD Test Guideline 421
Gavage
Fertility and developmental toxicity tests did not reveal any effect on reproduction.
Unpublished reports

Developmental Toxicity/Teratogenicity

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]- : Rat
Application Route: Oral
NOEL teratogenicity: 50 mg/kg
NOEL maternal: 50 mg/kg

Method: OECD Test Guideline 421
Gavage
Fertility and developmental toxicity tests did not reveal any effect on reproduction.
Unpublished reports

STOT

STOT-single exposure

Glass, oxide, chemicals

Toxicology Assessment:
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-

Toxicology Assessment:
The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]- : Toxicology Assessment:
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Glass, oxide, chemicals : No respirable material
No systemic effect expected

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	- Rat NOAEL: 40 mg/kg Method: OECD Test Guideline 407 Not considered to cause serious damage to health on repeated exposure Unpublished reports

Aspiration toxicity

Aspiration toxicity	:	no data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Glass, oxide, chemicals	:	LC50 - 96 h : > 1,000 mg/l - Danio rerio (zebra fish) Method: OECD Test Guideline 203 Unpublished reports
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	LC50 - 96 h : >= 100 mg/l - Poecilia reticulata (guppy) Method: OECD Test Guideline 203 No adverse effects observed at the solubility limit. Unpublished reports

Acute toxicity to daphnia and other aquatic invertebrates.

Glass, oxide, chemicals	:	EC50 - 72 h : > 1,000 mg/l - Daphnia magna (Water flea) Method: OECD Test Guideline 202 Unpublished reports
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	EC50 - 48 h : >= 100 mg/l - Daphnia magna (Water flea) Method: OECD Test Guideline 202 No adverse effects observed at the solubility limit. Unpublished reports

Toxicity to aquatic plants

Glass, oxide, chemicals	:	EC50 - 72 h : > 1,000 mg/l - Pseudokirchneriella subcapitata Method: OECD Test Guideline 201 Growth rate Unpublished reports NOEC - 72 h : > 1,000 mg/l - Pseudokirchneriella subcapitata Method: OECD Test Guideline 201 Growth rate Unpublished reports

Toxicity to microorganisms

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	EC50 - 3 h : > 1,000 mg/l - activated sludge Respiration inhibition Method: OECD Test Guideline 209 No adverse effects observed at the solubility limit. Unpublished reports NOEC - 3 h : >= 1,000 mg/l - activated sludge Respiration inhibition Method: OECD Test Guideline 209 No adverse effects observed at the solubility limit. Unpublished reports

Ecotoxicity assessment

Acute aquatic toxicity

Glass, oxide, chemicals	:	The product does not have any known adverse effects on the aquatic organisms tested
Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	The product does not have any known adverse effects on the aquatic organisms tested

12.2 Persistence and degradability

Biodegradability

Biodegradability	:	Primary biodegradation Not biodegradable. According to the data on the components internal evaluation

Stability

Stability in water

Glass, oxide, chemicals	:	Not applicable, insoluble product

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	Bioaccumulative potential Unpublished reports
Bioconcentration factor (BCF)	:	Not bioaccumulable. internal evaluation

12.4 Mobility in soil

Adsorption potential (Koc)

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	Koc: 3500000 Log Koc: 6.54 Method: according to a standardized method Unpublished reports

Known distribution to environmental compartments	:	Ultimate destination of the product: Soil Ultimate destination of the product: Sediment

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

Benzenamine, 4-(1-methyl-1-phenylethyl)-N-[4-(1-methyl-1-phenylethyl)phenyl]-	:	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

Environment assessment	:	According to the data on the components Not classified as Dangerous for the Environment, according to EC criteria

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

Advice on Disposal	:	Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material. Dispose of as hazardous waste in compliance with local and national regulations. Recycle the material as far as possible. If recycling is not practicable, dispose of in compliance with local regulations.

Advice on cleaning and disposal of packaging

Other data	:	Dispose of in accordance with local regulations.

SECTION 14: Transport information

DOT
not regulated

TDG
not regulated

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

United States TSCA Inventory	:	YES (positive listing) On TSCA Inventory
Canadian Domestic Substances List (DSL)	:	YES (positive listing) All components of this product are on the Canadian DSL.
Australia Inventory of Chemical Substances (AICS)	:	YES (positive listing) On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	:	YES (positive listing) On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	:	YES (positive listing) On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	:	YES (positive listing) On the inventory, or in compliance with the inventory

15.2 Federal Regulations

SARA 311/312 Hazards

Fire Hazard	no
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	no
Chronic Health Hazard	no

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Reportable quantity
2-Propenoic acid	79-10-7	5000 lb

SARA 304 Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Reportable Quantity
This material does not contain any components with a SARA 302 RQ.

15.3 State Regulations

California Prop 65 : WARNING! This product contains a chemical known in the State of California to cause cancer.
Glass, oxide, chemicals

SECTION 16: Other information

NFPA-Classification

Health	:	0 minimal
Flammability	:	0 minimal
Instability or Reactivity	:	0 minimal

HMIS-Classification

Health	:	0 minimal
Flammability	:	0 minimal
Reactivity	:	0 minimal

Further information

Date Prepared	:	11/04/2014
Further information	:	Product classified under the US GHS format.

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA	:	8-hour, time-weighted average
ACGIH	:	American Conference of Governmental Industrial Hygienists
OSHA	:	Occupational Safety and Health Administration
WHMIS	:	Workplace Hazardous Materials Information System
NTP	:	National Toxicology Program
IARC	:	International Agency for Research on Cancer
SAEL	:	Solvay Acceptable Exposure Limit
NIOSH	:	National Institute for Occupational Safety and Health
NFPA	:	National Fire Protection Association
HMIS	:	Hazardous Materials Identification System (Paint & Coating)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release

the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.