

SAFETY DATA SHEET		
TECHNYL A 208K BLACK 10N-L		
Revision: 2.01 CN (EN)	Issuing date: 2014-04-21	

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

1.1 Product identifier

Trade name : TECHNYL A 208K BLACK 10N-L

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 : 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 (Shanghai) Engineering Plastic Co., Ltd
No. 3966 Jindu Road, Xinzhuang Industrial Zone Shanghai 201108 China
Tel : +86 21 54 83 17 62
Fax : +86 21 54 42 71 07

E-mail address : information.fds@solvay.com

1.4 Emergency telephone number

MULTI LINGUAL EMERGENCY NUMBER (24/7)
Europe/America/Africa : +44 1235 239 670 (UK)
Middle East/Africa speaking Arabic : +44 1235 239 671 (UK)
Asia Pacific : +65 3158 1074 (Singapore)
China : +86 10 5100 3039 (Beijing)

China (Domestic Only): +86 532 8388 9090 (Qingdao)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification and labeling: Follow GB 13690, GB 20576-GB 20602 and GB 15258 (GHS 2011)

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

2.2 Label elements

GHS Classification and labeling: Follow GB 13690, GB 20576-GB 20602 and GB 15258 (GHS 2011)

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.

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3.2 Mixture

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

Information on Components and Impurities

Chemical Name	CAS-No.	Identification number	GHS Classification	Concentration [%]
Poly(ethene)	9002-88-4	not applicable	not classified	>= 1 - < 5
Carbon black	1333-86-4	not applicable	not classified	>= 1 - < 5
White mineral oil (petroleum)	8042-47-5	not applicable	not classified	>= 1 - < 5
potassium iodide	7681-11-0	not applicable	Skin irritation , Category 2 ; H315 Eye irritation , Category 2A ; H319 Acute aquatic toxicity , Category 2 ; H401 Chronic aquatic toxicity , Category 2 ; H411	>= 0.3 - < 0.5
hydroxylaluminium distearate	300-92-5	not applicable	Acute toxicity , Category 5 ; H313 Acute aquatic toxicity , Category 2 ; H401	>= 0.3 - < 0.5

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Show this safety data sheet to the doctor in attendance.
First aider 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

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4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Flash point : 400 °C closed cup
Molten form

Auto-ignition temperature : no data available

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 firefighting : Combustible product, melts on heating.
Risk of fire spreading due to the flow of liquid which is already alight.
Harmful or toxic vapours are released.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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

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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 : Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke.

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 : Fibreboard, 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

8.1 Control parameters

Components with workplace control parameters

Components	Value type	Value	Basis
Poly(ethene)	PC-TWA	5 mg/m3	Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.
	Form of exposure : Total		
Carbon black	PC-TWA	4 mg/m3	Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.
	Form of exposure : Total Possibly carcinogenic to humans		

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Components with workplace foreign Control Parameters

Components	Value type	Value	Basis
Carbon black	TWA	3 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Form of exposure : Inhalable fraction Bronchitis, Confirmed animal carcinogen with unknown relevance to humans			
White mineral oil (petroleum)	TWA	5 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Form of exposure : Inhalable fraction Upper Respiratory Tract irritation, Not classifiable as a human carcinogen			
potassium iodide	TWA	0.01 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Form of exposure : Inhalable fraction and vapor Upper Respiratory Tract irritation, Hypothyroidism, Not classifiable as a human carcinogen, varies			
hydroxylaluminium distearate	TWA	10 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Upper Respiratory Tract irritation, Eye irritation, Skin irritation, Does not include stearates of toxic metals., Not classifiable as a human carcinogen, varies			
hydroxylaluminium distearate	TWA	1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Form of exposure : Respirable fraction Lower Respiratory Tract irritation, Pneumoconiosis, Neurotoxicity, Not classifiable as a human carcinogen, varies			

8.2 Exposure controls

Control measures

Engineering measures : Vapour 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 : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat, drink or smoke.

Protective measures : The protective equipment must be selected in accordance with current CEN

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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.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: Form : pellets Physical state: solid Colour: black
Odour	: no data available
Odour Threshold	: no data available
pH	: no data available
Melting point/range	: 265 °C
Flash point	: 400 °C closed cup Molten form
Evaporation rate (Butylacetate = 1)	: no data available
Flammability (solid, gas)	: no data available
Flammability (liquids)	: no data available
Flammability/Explosive limit	: Ignition temperature : 450 °C
Auto-ignition temperature	: no data available
Vapour pressure	: no data available
Vapour density	: no data available
Density	: Bulk density : 1.14 kg/m ³
Solubility	: Water solubility : insoluble
Partition coefficient: n-octanol/water	: no data available
Thermal decomposition	: no data available
Viscosity	: Viscosity, dynamic : 2.5 mPa.s

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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 (NO_x)
 Hydrogen cyanide (hydrocyanic acid)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Carbon black LD50 : > 8,000 mg/kg - rat , for males and females
 Gavage
 Not classified as harmful if swallowed

potassium iodide LD50 : > 2,000 mg/kg - rat
 Published data
 Unpublished reports

hydroxyaluminium distearate LD50 : > 2,000 mg/kg - rat
 Published data

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LD50: > 5,000 mg/kg - rat
By analogy
Published data

Acute inhalation toxicity
Carbon black

: LC50 : > 0.0046 mg/l - rat
Not classified as harmful by inhalation
Published data

Acute dermal toxicity
Poly(ethene)

: No adverse effect has been observed in acute toxicity tests.
Unpublished reports
Published data

Carbon black

: Not classified as harmful by contact with skin

hydroxylaluminium distearate

: LD50 : > 3,000 mg/kg - guinea pig
By analogy
Published data

Acute toxicity (other routes of administration) : no data available

Skin corrosion/irritation

Skin irritation

Poly(ethene)

: No skin irritation
Unpublished reports
Published data

Carbon black

: rabbit
No skin irritation
Unpublished reports

potassium iodide

: Humans
Skin irritation
Published data
Unpublished reports

hydroxylaluminium distearate

: rabbit
slight irritation
Published data

Serious eye damage/eye irritation

Eye irritation

Carbon black

: No eye irritation
Unpublished reports

potassium iodide

: Humans
Eye irritation
Published data
Unpublished reports

hydroxylaluminium distearate

: rabbit
slight irritation
Published data

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Respiratory or skin sensitisation

Sensitisation

- Poly(ethene) : Did not cause sensitization on laboratory animals.
Unpublished reports
Published data

- Carbon black : mouse
Does not cause respiratory sensitisation.
If inhaled
Published data

Buehler Test - guinea pig
negative
Does not cause skin sensitisation.
Unpublished reports

- potassium iodide : Humans
The product is a skin sensitiser, sub-category 1A.
May cause sensitisation by skin contact.
Published data
Unpublished reports

Mutagenicity

Genotoxicity in vitro

- Poly(ethene) : Mutagenicity (Salmonella typhimurium - reverse mutation assay)

negative
Unpublished reports
Published data

- Carbon black : In vitro tests did not show mutagenic effects

- potassium iodide : Mutagenicity (Salmonella typhimurium - reverse mutation assay)

negative
Published data
Unpublished reports

Mutagenicity (Escherichia coli - reverse mutation assay)
with or without metabolic activation

negative
Published data
Unpublished reports

Chromosome aberration test in vitro
Strain: rat

positive
Published data
Unpublished reports

- Genotoxicity in vivo
Carbon black : In vivo tests did not show mutagenic effects

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Carcinogenicity

Carcinogenicity
Carbon black

: rat , female
Oral exposure
in food
No carcinogenic effects have been observed
Published data

rat
Dermal exposure
No carcinogenic effects have been observed
Published data

mouse , female
If inhaled
No carcinogenic effects have been observed
Note: IARC Classification: Group 2B

Toxicity for reproduction and development

Toxicity to reproduction/Fertility : no data available

Developmental Toxicity/Teratogenicity
Carbon black

: rat , female
Application Route: Inhalation
Method: OECD Test Guideline 414
Did not show teratogenic effects in animal experiments.

rabbit , female
Application Route: Inhalation
Method: OECD Test Guideline 414
Did not show teratogenic effects in animal experiments.

STOT

STOT - single exposure
Carbon black

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

STOT - repeated exposure
Carbon black

: Oral 2 y - mouse , female
NOAEL: 137 mg/kg bw/day
in food
Published data

Inhalation 90 d - rat , males
NOAEC: 0.0011 mg/l
Aerosol

Inhalation 90 d - rat , females
NOAEC: 0.001 mg/l
Aerosol

Dermal 1 y - rat , male
NOAEL: 20 %
Published data

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Acute effects : Non persistent irritation

Aspiration toxicity

Aspiration toxicity : no data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

- Carbon black : LC50 - 96 h : > 1,000 mg/l - Danio rerio (zebra fish)
Method: OECD Test Guideline 203
Unpublished reports
- potassium iodide : LC50 - 96 h : 896 mg/l - Oncorhynchus mykiss (rainbow trout)
Published data
Unpublished reports
- hydroxylaluminium distearate : LC50 : > 100 mg/l - Fish
Published data

LC50 - 96 h : 8.6 mg/l - Oncorhynchus mykiss (rainbow trout)
By analogy
Published data

LC50 - 96 h : 12 mg/l - Fish
By analogy
Published data

Acute toxicity to daphnia and other aquatic invertebrates.

- Carbon black : EC50 - 24 h : > 5,600 mg/l - Daphnia magna (Water flea)
Method: OECD Test Guideline 202
Unpublished reports
- potassium iodide : EC50 - 48 h : 7.5 mg/l - Daphnia magna (Water flea)
Published data
Unpublished reports
- hydroxylaluminium distearate : EC50 - 48 h : 1.5 mg/l - Daphnia dubia
By analogy
Published data

Toxicity to aquatic plants

- Carbon black : EC50 - 72 h : > 10,000 mg/l - Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201
Growth rate
Unpublished reports

NOEC - 72 h : > 10,000 mg/l - Desmodesmus subspicatus (green algae)
Method: OECD Test Guideline 201
Growth rate
Unpublished reports

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Toxicity to microorganisms
Carbon black : EC50 - 3 h : > 800 mg/l - activated sludge
Unpublished reports

Chronic toxicity to fish
potassium iodide : NOEC: 12.5 mg/l - 90 Days - Oncorhynchus mykiss (rainbow trout)
Published data
Unpublished reports

Terrestrial Compartment

Toxicity to soil dwelling organisms
Carbon black : This product does not have any known adverse effect on the soil organisms tested.

Ecotoxicity assessment

Acute aquatic toxicity
Carbon black : The product does not have any known adverse effects on the aquatic organisms tested

potassium iodide : Toxic to aquatic organisms.

hydroxyaluminium distearate : Toxic to aquatic organisms.

12.2 Persistence and degradability

Biodegradability

Biodegradability : not applicable

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water
hydroxyaluminium distearate : By analogy
Not potentially bioaccumulable
Published data

Bioconcentration factor (BCF) : not applicable

12.4 Mobility in soil

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

no data available

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12.6 Other adverse effects

Environment assessment		
Poly(ethene)	:	Not classified due to lack of data.
Carbon black	:	Not classified as Dangerous for the Environment
potassium iodide	:	DANGEROUS FOR THE ENVIRONMENT (N) Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

Advice on Disposal : Dispose of in accordance with local regulations.

Advice on cleaning and disposal of packaging

Other data : Dispose of in accordance with local regulations.

SECTION 14: Transport information

CN_DG

Not Regulated

ADR

Not Regulated

RID

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

SECTION 15: Regulatory information

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

Following last version of regulations are applicable for the chemical classification, SDS and label:

- General Rule for classification and hazard communication of chemicals, GB 13690
- Series standards of Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB 20576~GB 20602)
- General rules for preparation of precautionary label for chemicals, GB 15258
- Safety data sheet for chemical products—Content and order of sections, GB/T 16483

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SECTION 16: Other information

Full text of H-Statements

H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

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

Exposure controls/personal protection

PC-TWA	Permissible concentration - time weighted average
TWA	8-hour, time-weighted average

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 an other 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.