

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name: NAS® Resin - Natural Grades
This safety data sheet pertains to the following products:
NAS® 21
NAS® 30
NAS® 36
NAS® 90

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

General use: For extrusion and injection moulding of articles
Reserved for industrial and professional use.

Details of the supplier of the safety data sheet

Company name: Styrolution South East Asia Pte Ltd.
Street/POB-No.: 111 Somerset Road
Postal Code, city: #08-01/02 TripleOne Somerset, SG
Singapore 238164
WWW: www.styrolution.com
E-mail: infopoint.asia@styrolution.com
Telephone: +65 6933 8350
Telefax: +65 6933 8355
Dept. responsible for information:
Infopoint, Telephone: + 65 (0) 6933 - 8372
E-mail: infopoint.asia@styrolution.com

Emergency telephone number

Telephone: + 65 (0) 3158 - 1074

2. Hazards identification

Classification of the substance or mixture

GHS classification

This substance is classified as not hazardous.

Label elements

Hazard statements: not applicable

Precautionary statements: not applicable

Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
fine dust: explosive
The melted product can cause severe burns.

3. Composition / information on ingredients

Substances

Chemical characterisation: (C13H16O2)_n

Polymer Styrene-methylmethacrylate copolymer

CAS-Number: 25034-86-0

Additional information: Preparation does not contain dangerous substances above limits that need to be mentioned in this section according to applicable legislation.

4. First aid measures

In case of inhalation: Provide fresh air. Put victim at rest and keep warm.

Following skin contact: The melted product can cause severe burns.
Do not remove the product from the skin without medical assistance.
After contact with molten product, cool skin area rapidly with cold water. Consult physician.After eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an eye specialist in the event of irritation.After swallowing: Rinse mouth with water. Drink one or two glasses of water.
Never give an unconscious person anything through the mouth.

Most important symptoms and effects, both acute and delayed

Dust: Can cause skin, eye and respiratory tract irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Firefighting measures

Extinguishing media

Suitable extinguishing media:

Water fog, foam.

Only in case of small fires: extinguishing powder, carbon dioxide, Sand, earth.

Extinguishing media which must not be used for safety reasons:

High power water jet

Special hazards arising from the substance or mixture

In case of fire may be liberated: smoke, styrene, Methyl methacrylate, carbon monoxide and carbon dioxide (CO₂).

Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Cool endangered containers with water jetspray.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear personal protection equipment. Do not breathe dust.

Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

Methods and material for containment and cleaning up

Avoid generation of dust. Remove all sources of ignition.

Take up mechanically. Collect in closed containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage**Precautions for safe handling**

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe dust.

In the case of the formation of dust: Withdraw by suction.

Molten material: Avoid contact with the substance.

Precautions against fire and explosion:

Take precautionary measures against static discharges. Keep away from sources of ignition. Use grounding equipment. Use explosion-proof equipment and non-sparking tools/utensils. Avoid open flames.

Storage

Requirements for storerooms and containers:

Store in a well-ventilated place. Keep container tightly closed.

Protect against heat /sun rays.

Further details: Special danger of slipping by leaking/spilling product.

8. Exposure controls/personal protection**Control parameters**

Occupational exposure limit values:

Type	Limit value
long-term	8 mg/m ³

Additional information: The product contains very low levels of residual monomers and process chemicals (styrene, ethylbenzene and Methyl methacrylate) that may be evolved during thermal processing, along with possible decomposition products. As the identity and levels of these impurities evolved will depend upon the processing conditions (temperature etc.) it is the responsibility of the user to determine the adequacy of any protection or safety measures.

Exposure controls

Provide good ventilation in the work area. Additional controls are not normally necessary when handling the polymer.

Thermal extrusion: Provide local exhaust ventilation to ensure that the workplace exposure limit is not exceeded.

Use of respiratory protection may be necessary during maintenance activities.

See also information in chapter 7, section storage.

Personal protection equipment**Occupational exposure controls**

- Respiratory protection: In case of dust formation:
Use filter type A-P2 according to EN 14387.
- Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber - Layer thickness. 0.11 mm.
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
In case of melting: Impervious heat protective gloves according to EN 407.
Glove material: Leather
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Eye protection: Tightly sealed goggles according to EN 166.
- Body protection: Wear suitable protective clothing.
Boots or safety shoes.
- General protection and hygiene measures:
Do not breathe vapours. Keep away from sources of ignition.
Wash hands before breaks and after work.
In case of dust formation: Particular danger of slipping on spilled product on the ground.

9. Physical and chemical properties**Information on basic physical and chemical properties**

- Appearance: Form: solid: pellets/granulate
Colour: colourless up to white
- Odour: weak
- Odour threshold: no data available
- pH value: no data available
- Melting point/freezing point: 103 °C (softening point)
- Initial boiling point and boiling range: no data available
- Flash point/flash point range: no data available
- Evaporation rate: no data available
- Flammability: no data available
- Explosion limits: no data available
- Vapour pressure: no data available
- Vapour density: no data available
- Density: 1.00 - 1.08 g/cm³
- Water solubility: insoluble
- Partition coefficient: n-octanol/water: no data available
- Auto-ignition temperature: no data available
- Thermal decomposition: >288 °C

Additional information

- Viscosity: -
- Explosive properties: In case of dust formation (Fine dust): danger of dust explosion
- Oxidizing characteristics: not oxidising

10. Stability and reactivity

Reactivity:	refer to 10.3
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions:	In case of dust formation (Fine dust): danger of dust explosion
Conditions to avoid:	Avoid open flames. Avoid dust formation.
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	In case of fire may be liberated: smoke, styrene, Methyl methacrylate, carbon monoxide and carbon dioxide (CO ₂).
Thermal decomposition:	>288 °C

11. Toxicological information

Information on toxicological effects

Toxicological effects:	Acute toxicity (oral): Based on available data, the classification criteria are not met. Mild acute toxicity Acute toxicity (dermal): Based on available data, the classification criteria are not met. Mild acute toxicity. May cause irritations. Acute toxicity (inhalative): Based on available data, the classification criteria are not met. Mild acute toxicity. May cause irritations. Skin corrosion/irritation: Lack of data. May cause irritations. Eye damage/irritation: Lack of data. May cause irritations. Sensitisation to the respiratory tract: Lack of data. Skin sensitisation: Based on available data, the classification criteria are not met. Not known to cause sensitization. Germ cell mutagenicity/Genotoxicity: Lack of data. Carcinogenicity: Lack of data. Reproductive toxicity: Lack of data. Effects on or via lactation: Lack of data. Specific target organ toxicity (single exposure): Lack of data. Dusts: Irritating to eyes, respiratory system and skin. Specific target organ toxicity (repeated exposure): Lack of data. Aspiration hazard: Lack of data.
Other information:	When handled appropriately, even after long years of experience with this product, no adverse health effects are known.

Symptoms

Dust:
Can cause skin, eye and respiratory tract irritation.
The melted product can cause severe burns.
Thermal treatment, Processing: Irritating to eyes, respiratory system and skin.

12. Ecological information

Toxicity

Aquatic toxicity: no evidence of aquatic toxicity

Effects in sewage plants: Not toxic to sewage organisms.

Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.
Degrades photochemically in the air.
The product is likely to persist in the environment.

Mobility in soil

Product is not soluble in water.
Substance is heavier than water and sinks.
mobility in soil: low

Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Waste treatment methods

Product

Recommendation: With due observance of the regulations laid down by the local authorities, this must be brought to a suitable incineration plant/waste disposal site.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

14. Transport information

USA: Department of Transportation (DOT)

Proper shipping name: Not controlled under DOT

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: No

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.



SAFETY DATA SHEET

according to GB/T16483-2008

NAS® Resin - Natural Grades

Material number NAS001

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15. Regulatory information

National regulations - China

No data available

16. Other information

Reason of change: General revision (Regulation (EU) No 2015/830)

Date of first version: 24/9/2012

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.