Safety Data Sheet

Acrylonitrile-Butadiene-Styrene Copolymer **(ABS)**

According to EU 2015/830 (REACH) and 1272/2008 (CLP)

Product name: **ABS** Version 1 Revision Date: June 1,2015

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

1.1 Product identifier

Product name: **R03003**

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

Relevant identified uses: Mixture used for the production of molded plastic articles

1.3 Details of the supplier of the Safety Data Sheet

Supplier: Netco Extruded Plastics
Address: 30 Tower Street
Hudson, MA 01749
USA
Telephone: 877-638-2621

1.4 Emergency telephone number

Emergency telephone : 877-638-2621

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC: Not classified as hazardous (polymeric state)

Classification according to Regulation (EC) N° 1272/2008 (CLP): Not classified as hazardous (polymeric state)

2.2 Label elements

Not labelled as hazardous

2.3 Other hazards

vPvB/PBT assessment: not available

Section 3. Composition/information on ingredients

3.1 Composition of the substance/ preparation

Substance or Preparation Substance
Content

CAS	Name	Content
9003-56-9	Acrylonitrile-Butadiene-Styrene Copolymer	>98%
-		≤ 2%

Impurities Contributing to Hazard None

3.2 Additional information:

Reach Info:

	Pre-registration No.	Registration No.
Acrylonitrile	05-2117149456-38-0000	01-2119474195-34-0045
Styrene	05-2117149462-45-0000	01-2119457861-32-0006 01-2119457861-32-0007 01-2119457861-32-0057 01-2119457861-32-0065 01-2119457961-32-0081
Buta-1,3-diene	05-2117149467-35-0000	01-2119471988-16-0044

3.3 For full text of R- and H-phrases: see section 16

Section 4. First-aid measures

4.1 Description of first aid measures

General notes: Remove affected persons from the danger area, at the same time ensuring your own safety. Remove all contaminated clothing immediately

Following inhalation: In case of gases evolving from melted resin, move subject to fresh air. Treat symptomatically

Following skin contact: In case of pellets or powder, wash with water. In case of smelt, wash affected skin area and clothing with plenty of (soap and) water. Seek medical advice

Following eye contact: In case of pellets or powder, flush with plenty of water for at least 15 minutes. Seek medical advice if any dust particles still remain.
In case of gases evolving from melted resin of high temperature, flush with plenty of water for at least 15 minutes. Seek medical advice if necessary

Following ingestion: Induce vomiting. Rinse mouth with water. Seek medical advice if necessary

Self-protection of the first aider: -

4.2 Most important symptoms & effects both acute & delayed

Dust: Skin irritation, eye irritations and redness

4.3 Indication of any immediate medical attention and special treatment needed: -

Treat symptomatically.
(Decontamination, vital functions)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Water, foam, dry chemical powder

For safety reasons unsuitable extinguishing agents: -

5.2 Special hazards arising from the substance or mixture: -

5.3 Advice for firefighters

Protective equipment: Self-contained breathing apparatus

Further measures: -

5.4 Additional information: -

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment & emergency procedures

Pellets or powder remained on ground may cause slipping
Wear protective equipment
Ensure adequate ventilation
Keep away from ignition sources
Keep unprotected persons away

6.2 Environmental precautions

Gather pellets and powder thoroughly to avoid birds or fishes taking from draining water.
Do not allow product to reach sewage system or water bodies. Inform respective authorities in case product reaches water, sewage system or soil

6.3 Methods and material for containment and cleaning up

Recovery if not contaminated or disposal

6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures: -

Measures to prevent fire: Prevent from fire around handling area

Measures to prevent aerosol and dust generation: maintain good housekeeping standards to prevent accumulation of dust. To avoid dust explosion resulting from the existence of powder, electrostatics eliminators and grounding should be fixed to such equipment as air transferring pipes, bag filters and hoppers. Use electrically conductive filters for bag filters.

Measures to protect the environment: -

Advice on general occupational hygiene: -

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Keep the material at a cool dry place. Protect from direct sunlight, rain and violent temperature fluctuation. Fire is inhibited around storage area.

Requirements for storage rooms and vessels: -

Suitable materials and coating: -

Unsuitable materials or coatings: -

Further information on storage conditions: -

7.3 Specific end use(s)

Recommendations: -

Section 8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limits:None established

8.2 Exposure control

Appropriate engineering controls: Install eyes washer and shower in the place of operation. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits
Personal protection:
- Respiratory protection: Wear masks for cleaning molding machines
- Hand protection: Heat-insulting gloves when handling molten form
- Eye protection: Wear safety glasses for general purpose. Wear chemical goggles for cleaning molding machines
- Skin and body protection: Gloves necessary for handling melted resin
- Hygiene measures: Wash hands after handling

8.3 Environmental exposure controls

Product related measures to prevent exposure: None specific
Instruction measures to prevent exposure: None specific
Organizational measures to prevent exposure: None specific
Technical measures to prevent exposure: None specific
Environmental exposure controls: Do not allow product to reach sewage system or water bodies

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Physical state: solid, granulate
Odour	Odourless or negligible
Colour	Natural or off-white
Odour threshold	None

pH	Not applicable
Melting point / freezing point	not determined
Initial boiling point and boiling range	Not applicable
Flash point	404 °C
Evaporation rate	Not applicable
Flammability (solid, gas)	Not available
Upper/lower flammability or explosive limits	45 g/m³ (open cup, powder)
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative density (H2O=1)	1.03 - 1.10 g/cm³
Bulk density	Not available
Solubility(ies)	Not soluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	466 °C
Decomposition temperature	> 300 °C
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	Not oxidizing

9.2 Other safety information: -

Section 10. Stability and reactivity

10.1 Reactivity: Non-reactive under normal handling and storage conditions

10.2 Chemical stability: Stable under normal handling and storage conditions

10.3 Possible hazardous reaction: -

10.4 Conditions to avoid: Avoid excessive heat, flames and all sources of ignition

10.5 Incompatible materials: not applicable

10.6 Hazardous decomposition products: not applicable

Section 11. Toxicological information

11.1 Information on toxicological effects

Toxicological effects:
- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- 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. Not to be expected
- Skin sensitisation: Lack of data. Not to be expected
- Germ cell mutagenicity/Genotoxicity: Lack of data. Not to be expected
- Carcinogenicity: Lack of data. Not to be expected
- Reproductive toxicity: Lack of data. Not to be expected
- 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.

Other information
Styrene:
- Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure.
- lung damages
- May be fatal if swallowed and enters airways.
- Causes serious eye irritation. Causes skin irritation.

Acrylonitrile:
- Toxic by inhalation, in contact with skin and if swallowed.
- May cause cancer. Suspected of damaging the unborn child.
- Causes skin irritation. May cause an allergic skin reaction. Causes serious eye
- damage.

1,3-Butadiene:
- May cause cancer. May cause genetic defects.

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.
- In case of ingestion: Swallowing may cause gastrointestinal irritation and pain of guts.

Section 12. Ecological information

12.1 Toxicity

Method	Results	Reference
Short-term aquatic toxicity		
Based on available data on the constituents the classification criteria are not met LC(50)mixture = 5.78 mg/l (additivity and summation method, toxicity information available for 92,5 % of the mixture)		
Long-term aquatic toxicity		
Based on available data on the constituents the classification criteria are met and the mixture is therefore classified as Aquatic Chronic 1 $NOEC_{mixture}$ = 0.0079 mg/l (additivity and summation method, toxicity information available for 78 % of the mixture)		

12.2 Persistence and degradability

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

Effects in sewage plants:
- In sewage treatment plants it may be separated mechanically.

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.

12.4 Mobility in soil

no data available

12.5 Results PBT & vPvB assessment

According to the revised Annex XIII of regulation (EC) 1907/2006 and (EC) 253/2011: No information available on the product as such

12.5 Other adverse effects:

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

12.7 Additional information: -

Section 13. Disposal considerations

13.1 Waste treatment methods

Product / Packaging disposal: Dispose in accordance with the current local regulations.
Waste codes according to European Waste Catalogue: -
Waste treatment-relevant information: Inadequate incineration may generate toxic gases such as CO, HCN, AN and SM
Sewage disposal-relevant information: -
Other disposal recommendations: -

Section 14. Transport information

ADR/RID

14.1 UN number
Not applicable

14.2 UN proper shipping name
Proper Shipping Name: NOT REGULATED

14.3 Transport hazard class(es)
Not applicable

14.4 Packing Group
Not applicable

14.5 Environmental hazards
Not considered environmentally hazardous based on available data

14.6 Special precautions for user
Special Provisions: no data available
Hazard identification No:no data available

ADNR / ADN
14.1 UN number
Not applicable
14.2 UN proper shipping name
Proper Shipping Name: NOT REGULATED
14.3 Transport hazard class(es)
Not applicable
14.4 Packing Group
Not applicable
14.5 Environmental hazards
Not considered environmentally hazardous based on available data
14.6 Special precautions for user
no data available

IMDG
14.1 UN number
Not applicable
14.2 UN proper shipping name
Proper Shipping Name: NOT REGULATED
14.3 Transport hazard class(es)
Not applicable
14.4 Packing Group
Not applicable
14.5 Environmental hazards
Not considered environmentally hazardous based on available data
14.6 Special precautions for user
EMS Number: Not applicable
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

ICAO/IATA
14.1 UN number
Not applicable
14.2 UN proper shipping name
Proper Shipping Name: NOT REGULATED
14.3 Transport hazard class(es)
Not applicable
14.4 Packing Group
Not applicable
14.5 Environmental hazards
Not considered environmentally hazardous based on available data
14.6 Special precautions for user
no data available

Section 15. Regulatory information

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

Authorization and / or restrictions on use: None
Other EU regulations: The following substances are under European Seveso regulation:

Substance	Seveso category	Other Seveso categories	Seveso concentrations	Categories
Acrylonitrile	2	9ii	10 % ≤ C < 20 % 2	2
Buta-1,3-diene	0	8	-	-
Styrene	6	-	C ≥ 12,5 % -	-

Other national regulations:

U.S. REQULATIONS :
TSCA INVENTORY STATUS : This product complies with the Chemical Substance Inventory requirements of the US EPA TSCA.
CERCLA SECTION 103 (40CFR302.4) : Not Listed
SARA SECTION 313 (40CFR372.65) : Not Listed
SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21)

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not yet required.

Section 16. Other information

16.1 Indication of changes

Version 1: First issue according to Regulations (EC) 453/2010 (REACH) & 1272/2008 (CLP)

16.2 Key literature references and sources for data

http://esis.jrc.ec.europa.eu/
http://echa.europa.eu/
http://gestis-en.itrust.de

16.3 Relevant R-phrases and/or H-statements (number and full text):

H220 Extremely flammable gas
H225 Highly flammable liquid and vapour
H226 Flammable liquid and vapour
H301 Toxic if swallowed
H311 Toxic in contact with skin
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H319 Causes serious eye irritation
H331 Toxic if inhaled
H332 Harmful if inhaled

R10 Flammable
R11 Highly flammable
R12 Extremely flammable
R20 Harmful by inhalation
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed
R36 Irritating to eyes
R37 Irritating to respiratory system
R38 Irritating to skin
R40 Limited evidence of a carcinogenic effect
R41 Risk of serious damage to eyes

H335 May cause respiratory irritation
H340 May cause genetic defects
H350 May cause cancer
H351 Suspected of causing cancer
H400 Very toxic to aquatic life

R43 May cause sensitisation by skin contact
R45 May cause cancer
R46 May cause inheritable genetic damage
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

H411 Toxic to aquatic life with long lasting effects

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

16.6 Training advice: -

16.7 Further information: According to the guidance version 2.0 for monomers and polymers from the European Chemicals Agency
dated as of April 2012, the classification of the polymer takes into account the classification of all its constituents, such as unreacted monomers. These constituents in fact should be taken into account for classification of the polymer. This means that the same classification methods as for mixture should be applied to polymer substances.
In order to determine a classification for the studies about the water soluble fraction as well as the absorption should be performed on the polymer as such.