

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1. Product identifier

Product name: ASA

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

General use: Manufacture of plastic products **Restriction on use:** Used only recommended uses

3. Details of the supplier of the safety data sheet:

Supplier: Laboratorio Geométrico S.L. Calle Segunda (Polígono Industrial El Montalvo III), 4, 37188, Carbajosa de la Sagrada info@winkle.shop 670 37 88 29

4. Emergency telephone number Emergency telephone numbers : 112

2. HAZARDS IDENTIFICATION

1. GHS Classification

Not applicable

2. GHS label elements

Hazard symbols: Not applicable Signal words: Not applicable Hazard statements: Not applicable Precautionary statements: Prevention: Not applicable Response: Not applicable Storage: Not applicable Disposal: Not applicable

3. Other hazards which do no result in classification: (NFPA Classification)

NFPA grade (0 ~ 4 level) Health: 1, Flammability: 1, Reactivity: 0

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The information in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate. This SDS contains a general summary of hazards known to Laboratorio Geométrico S.L., but does not purport to describe every hazard that exists. Laboratorio Geométrico S.L. and its subsidiaries ("Winkle") expect each customer or user of its products (each, a "User") to study this SDS carefully and consult appropriate expertise to become aware of any hazards associated with NatureWorks products. LABORATORIO GEOMÉTRICO MAKES NO WARRANTY, EXPRESS OR IMPLIED REGARDING THE INFORMATION CONTAINED HEREIN OR ITS PRODUCTS, INCLUDING BUT NOT LIMITED TO ANY WARRANTY AS TO ACCURACY OR COMPLETENESS OF INFORMATION, OR ANY IMPLIED WARRANTY OF MERCHAN-TABILITY OR FITNESS FOR A PARTICULAR PURPOSE.



3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | Tradename and Synonyms | CAS No. | Content (%) |
|--|------------------------------------|------------|-------------|
| 2-Propenoi acid butyl ester polymer with ethenylbenzene and 2-propenenitrile | ASA | 26299-47-8 | 97 ~ 100 |
| Typical stabilizers and lubricants | Typical stabilizers and lubricants | | 0-3 |

4. FIRST AID MEASURES

1. Description of first aid measures

| Eye contact: | Solid or dust may cause irritation or corneal due to mechanical action Inmediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician |
|---|---|
| Skin contact: | Essentially nonirritating to skin but rinse with copious water Mechanical injury only |
| Ingestion: | Unlikely due to physical state. Rinse your mouth with water inmediately. If vomiting occurs, tower the head to ease vomiting and seek medical attention inmediately |
| Inhalation: | Dust may cause irritation to respiratory In case of breathing, fumes released from heated material may cause respiratory irritation. In case of inhaling dense smoke, inmediately remove a person to fresh air. If necessary, apply artificial respiration and seek medical attention inmediately |
| Delayed and inmediate effects and also chroni effects from short and long term exposur | c |
| Notes to physician: | Not available |

5. FIREFIGHTING MEASURES

1. Suitable (unsuitable) extinguishing media

Suitable extinguishing media: water, dry extinguishing media, foam, carbon dioxide Usually use water and use extinguishing media appropiate to surrounding conditions

2. Specific hazards arising from the chemical

Pyrolysate: carbon dioxide, carbon monoxide, hydrogen cyanide and a variety of chemical substances

The substances/groups of substances mentioned can be realised in case of fire



Irritating gases and dense smoke Dust can form an explosive mixture with air

3. Social protective actions for firefighters

Cool containers with water until well after fire is out Keep unautorized personnel out Withdraw inmediately in case of rising sound from venting safety devices or discoloration of tank Notify your local firestation and inform the location of the fire and characteristics hazard Wear appropiate protective equipment Keep containers cool with water spray

6. ACCIDENTAL RELEASE MEASURES

1. Personal precautions, protective equipment and emergency procedures

Pellets or beads may present a slipping hazard Sources of ignition should be kept well clear

2. Environmental precautions

Discharge into the environment must be avoided Keep out of irrigation ditches sewers, and water supplies Spills should be collected to prevent contamination of waterways If large amounts have been spilled, onform the relevant authorities

3. Methods and materials for containment and cleaning up

Sweep up Appropiate container for disposal of spilled material collected Avoid raising dust Ensure adequate ventilation

7. HANDLING AND STORAGE

1. Precautions for safe handling

Avoid formation of dust When the product is ground (chopped), dust explosion regulations should be noted Avoid pellets/bags from getting wet Keep bags always closed/keep container lightly closed Do not handle until all safety precautions have been read and understood

2. Conditions for safe storage, including any incompabilities

Protect againts moisture. Keep sealed when not in use Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame Please pay attention to incompabilities materials and conditions to avoid Keep bags/containers in a well-ventilated place



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

1. Exposure limits

ACGIH TLV: Not available

2. Engineering controls

Good general ventilation should be sufficient for most conditions Local exhaust ventilation may be necessary for some operations

3. Personal protective equipment

Respiratory protection:

Consider warning properties before use

For most conditions, no respiratory protection should be needed; however, If handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator

In gusty atmospheres, use an approved

Eye protection:

Wear a primary eye protection such as resistant safety goggles with side-shields (frame googles)

Hand protection:

Wear appropiare glove

Skin protection:

Wear appropiare clothing **Other:**

Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Solid (Pellets) |
|---------------------------|---------------------------|
| Color: | Not available |
| Odor: | Almost odorless |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting/freezing point: | 180 ~ 200°C/not available |
| Initial boiling point/ | Not available |
| boiling ranges: | |
| Flash point: | Not available |
| Evaporation rate: | Not available |
| Flammability (solid,gas): | Not available |
| Upper/lower flammability | Not available |
| or explosive limits: | |
| Vapour pressure: | Not available |
| Solubility: | Not available |
| Vapour density: | Not available |
| Specific gravity: | 1.07 |
| Partition coefficient of | Not available |
| n-octanol/water: | |



Autoignition temperature: **Decomposition temperature:** Not available Viscosity: Molecular weight:

Not available Not available 50,000 ~ 250,000

10. STABILITY AND REACTIVITY

1. Chemical stability

This material is stable under recommended storage and handling conditions Hazardous polymerization will not occur

2. Possibility of hazardous reactions

Avoid extreme heat. Avoid all sources of ignition; heat, sparks, open flame Avoid fire and heating above 60°C for storage conditions

3. Conditions to avoid

Avoid contact with incompatible materials and condition Avoid: Accumulation of electrostatic charges, heating, flames and hot surfaces

4. Incompatible materials

Strong oxidizing agents

5. Hazardous decomposition products

May emit flammable vapour if involved in fire

Gaseous products of degradation can be given off if the product is greately overheated, monomers, hydrocarbons, gases/vapours, cyclic low molecular weight oligomers, oxides and hydrogen cyanide

11. TOXICOLOGICAL INFORMATION

1. Information on the likely routes of exposure

Respiratory: Not available Oral: Not available Eye-Skin: Not available

2. Delayed and inmediate effects and also chronic effects from short and long term exposure

Acute toxicity

Oral: -[2-Propenoic acid butyl ester polymer with ethenylbeneze and 2-propenenitrike]: LD50 > 5000 mg/kg Rat Dermal: Not available Inhalation: Not available Skin corrosion/irritation Not available Serious eye damage/irritation Not available **Respiratory sensitization** Not available Skin sensitization

Not available



Cancinogenicity

1ARC: Not available OSHA: Not available ACGIH: Not available NTP: Not available EU CLP: Not available **Germ cell mutagenicity** Not available **Reproductive toxicity** Not available **STOT-single exposure** Not available **STOT-repeated exposure** Not available **Aspiration hazard** Not available

12. ECOLOGICAL INFORMATION

1. Ecotoxicity

Fish Not available Crustaceans Not available Algae Not available

2. Persistence and degradability

Persistence Not available Degradability Not available

3. Bioaccumulative potential

Bioaccumulative potential Not available **Biodegradation** Not available

4. Mobility in soil

Not available

5. Other adverse effects

Not available



13. DISPOSAL CONSIDERATIONS

1. Disposal methods

Must be dumped or incinerated in accordance with local regulations For unused & uncontaminated product, the preferred options inclide sending to a licensed, permited: recycler, reclaim, incinerator or other thermal destruction device

2. Special precautions for disposal

Do not Dimp into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/provincial and local law regulations. Regulations may vary in different locations. Waste characterizations and compliance with appliance laws are the responsability solely of the waste generator.

14. TRANSPORT INFORMATION

1. UN number (IMDG)

Not available

- 2. Proper shipping name Not available
- 3. IMDG Class

Not available

- 4. IMDG Packaging group Not available
- 5. Marine pollutant

Not available

6. Special precautions for user related to transport or transportation measures

Local transport follows in accordance with Dangerous goods Safety Management Law Package and transport follow in accordance with Department od Transportation (DOT) and other regulatory agency requirements EmS FIRE SCHEDULE: Not available EmS SPILLAGE SCHEDULE: Not available

15. REGULATORY INFORMATION

1. National and/or international regulatory information

POPS Management Law Not applicable Information of EU Classification Classification: Not applicable Risk Phrases: Not applicable Safety Phrase: Not applicable U.S Federal regulations OSHA PROCESS SAFETY (29CFR1910.119): Not applicable CERCLA Section 103 (40CFR302.4): Not applicable



EPCRA Section 302 (40CFR355.30): Not applicable EPCRA Section 304 (40CFR355.40): Not applicable EPCRA Section 313 (40CFR372.65): Not applicable **Rotterdam Convention listed ingredients** Not applicable **Stockholm Convention listed ingredients** Not applicable **Montreal Convention listed ingredients** Not applicable

16. OTHER INFORMATION

1. Reference

The information contained herein is bvelieved to be accurate. It is providd independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability of fitness for a particular purpose is made with respect to the product or the information contained herein.

This Safety Data Sheet was complied with data and information from the following sources: KOHA, NITE, ESIS, NLM, SIDS, IPCS

2. Issue date

1997-04-01

3. Revision number and Last data revised

6 times, 2014-03-07

4. Other

This MSDS is prepared according to the Globally Harmonized System (GHS).