SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

TRADE NAME:    Sulfanilic Acid
CAS NUMBER:    121-57-3

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

USAGE:    Industrial intermediates for the synthesis of organic chemicals

1.3 DETAILS OF THE SUPPLIER OF SAFETY DATA SHEET

MANUFACTURER:   NATION FORD CHEMICAL COMPANY
2300 Banks Street
Fort Mill, South Carolina 29715
United States of America

EMAIL:    INFO@NATIONFORDCHEM.COM

PRODUCT INFO TELEPHONE: +1-803-548-3210

ONLY REPRESENTATIVE:   Chemservice GmbH
Herrnsheimer Hauptstr. 1b
67550 Worms, Germany

EMAIL:    germany@chemservice-group.com

PHONE:    +49-6241-95480-0

FAX:    +49 (0)6241-95480-25

1.4 EMERGENCY TELEPHONE NUMBER

CHEMTREC:    +1-800-424-9300

SECTION 2 – HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF A SUBSTANCE OR MIXTURE


Skin Irritant: Category 2   H315
Eye Irritant: Category 2A   H319
Skin Sensitizer: Category 1   H317

2.2 LABEL ELEMENTS

HAZARD PICTOGRAMS

GHS07

SIGNAL WORD: Warning

HAZARD STATEMENTS:

H315   Causes skin irritation.
H317   May cause an allergic skin reaction.
H319   Causes serious eye irritation.

PRECAUTIONARY STATEMENTS:

P261   Avoid breathing dust.
P264   Wash skin thoroughly after handling.
P272   Contaminated work clothing should not be allowed out of the workplace.
P280   Wear protective gloves.
P302/352 IF ON SKIN: Wash with plenty of soap and water.
P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321   Specific treatment (see supplemental first aid instructions on this label).
P333/313 If skin irritation or rash occurs: Get medical attention.
P337/313 If eye irritation persists: Get medical attention.
P362/364 Take off contaminated clothing and wash before reuse.
P501   Dispose of contents in accordance with local regulations.

Other hazards

RESULTS OF PBT AND vPvB ASSESSMENT:

PBT     No
vPvB   No

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

SUBSTANCE NAME: Sulfanilic Acid
CAS NUMBER: 121-57-3
EINECS NUMBER: 204-482-5
REACH REGISTRATION NUMBER: 01-2119541820-45-0000
INDEX NUMBER: 612-014-00-X
PURITY: 99+% SYNONYMS: 4-Aminobenzenesulfonic acid p-anilinesulfonic acid Sulphanilic acid
SECTION 4 - FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

GENERAL INFORMATION
Immediately remove any clothing soiled by the product. Provide oxygen treatment if affected person has difficulty breathing. Take affected persons out into the fresh air.

INHALATION
If large amounts are inhaled, remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, administer oxygen and call a physician.

SKIN CONTACT
Immediately wash skin with soap and copious amounts of water while removing contaminated clothing. Wash contaminated clothing before reuse.

EYE CONTACT
Immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. Seek medical attention.

INGESTION
Do not induce vomiting. Immediate vigorous rinsing of the mouth. Drink water in small sips (dilution effect). If unconscious place in recovery position and seek immediate medical attention. Maintain an open airway. Loosen tight clothing (such as a collar, tie, belt or waistband).

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Causes eye and skin irritation. May cause allergic skin reaction (sensitization.)

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

NOTE TO PHYSICIAN
Symptomatic treatment and if possible contact poison specialist.

No further relevant information available. Immediate medical attention should not be required.

SECTION 5 – FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA
Carbon Dioxide (CO2)
Powder
Water Spray
Fight larger fires with water spray or alcohol resistant foam

UNSUITABLE EXTINGUISHING MEDIA
Water with full jet

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
The substance emits toxic fumes of carbon monoxide, carbon dioxide, and oxides of sulfur and nitrogen under fire conditions. Sulfanilic acid can produce flammable dust clouds in air. Take precautionary measures against static discharges. If involved in a fire, it may emit noxious and toxic fumes.

5.3 ADVICE FOR FIRE FIGHTERS

If excessive smoke or fumes are encountered, wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Dispose of fire debris and contaminated fire-fighting water in accordance with official regulations. Collect contaminated fire-fighting water separately. It must not enter the sewage system.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Ensure suitable personal protection (including respiratory protection) during removal of spillages. Sweep up, place in drum and hold for approved waste disposal in compliance with local, state, and federal requirements. Avoid breathing dust. Avoid skin and eye contact and inhalation.

6.2 ENVIRONMENTAL PRECAUTIONS

Do not allow to enter drains, sewers or watercourses.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Protect against dust. Clear up spillages, transfer to a container for disposal. Wash the spillage area clean.

6.4 REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7 – HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Store in well ventilated areas. Keep container tightly closed and dry. Do not store with acids. Take precautionary measures against static discharges.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

| REQUIREMENTS TO BE MET BY STOREROOMS AND RECEPCTACES | Store in a dry place. |
| Keep away from sources of ignition and strong oxidizing agents. |
| Do not use food containers. Risk of confusion! |
| Containers are clearly and permanently labelled. |
| Store in the original container if possible. |
| Keep container tightly closed. |
INFORMATION ABOUT STORAGE IN ONE COMMON STORAGE FACILITY

Do not store together with acids.
Store away from foodstuffs.
Store away from flammable substances.

FURTHER INFORMATION ABOUT STORAGE CONDITIONS:
The storage in one common storage facility with materials belonging to another storage classes is only possible under certain conditions.
The substance should not be stored with substances, which can lead to dangerous reactions. Keep container tightly sealed.

7.3 SPECIFIC END USE(S)
See exposure scenarios in Annex 1, 2, & 3

SU9 Manufacture of fine chemicals
SU10 Formulation (mixing) of preparations and/or re-packaging (excluding alloys)

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

DNEL VALUES
DERMAL (LONG TERM EXPOSURE) 3.33 mg/kg bw/day

INHALATION (LONG TERM EXPOSURE) 6.67 mg/m3

PNEC VALUES
PNEC_{aqua} (freshwater) 0.023 mg/L; Assessment factor 1000
PNEC_{aqua} (marine water) 0.0023 mg/L; Assessment factor 10000
PNEC_{aqua} (intermittent releases) 0.23 mg/L; Assessment factor 100
PNEC_{STP} 100 mg/L

This product does not have an ACGIH TLV or OSHA PEL.

INGREDIENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORK PLACE: Contains no substances with occupational exposure limits.

ADDITIONAL INFORMATION: The lists valid during the making were used as basis.

8.2 EXPOSURE CONTROLS:

PERSONAL PROTECTIVE EQUIPMENT GENERAL
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.

PROTECTIVE AND HYGIENIC MEASURES:
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
VENTILATION:
A general exhaust system is recommended.

RESPIRATORY PROTECTION
NIOSH/MSHA approved respirator or follow the requirement of the local governing body.

In case of an accidental release it is recommended to wear respiratory protection such as particle filter P2 or P3.

HAND PROTECTION
Protective gloves according to proper IH procedures.

EYE/FACE PROTECTION
In cases where there is likelihood of eye contact, wear chemical goggles.

SKIN AND BODY PROTECTION
Protective work clothing.

ENVIRONMENTAL EXPOSURE
Product as well as with product contaminated constituents, cleaning or solvent: do not release into the environment. Dispose of as hazardous waste in accordance with EC directives on waste.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Color
White to light gray powder

Form
Solid

Odour
Odourless

Odour threshold
Not determined

pH
2.5

Melting / Freezing Point
The substance decomposes before melting.

Boiling point
The substance decomposes before boiling.

Flash Point
Not applicable

Evaporation Rate
Not applicable

Flammability (solid, gaseous)
Product is not flammable

Upper Explosion Limit
Not determined

Lower Explosion Limit
Not determined

Vapour Pressure
< 0.01 hPa

Density
1.862 g/cm³
Solubility in / Miscibility with Water (20°C) 12 g/l (Value used in CSA)

Segregation coefficient (n-octanol/water) at 25°C -2.3 log POW

Ignition Temperature
Descomposition Temperature ca. 288 °C

Self-igniting 331 °C at 1013 hPa (Value used for CSA)

Danger of Explosion No data available.

Dynamic Viscosity Not applicable

Kinematic Viscosity Not applicable

SECTION 10 - STABILITY AND REACTIVITY

10.1 REACTIVITY
No data available.

10.2 CHEMICAL STABILITY
Stable at normal storage and handling conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS
No data available.

10.4 CONDITIONS TO AVOID
No data available.

10.5 INCOMPATIBLE MATERIALS
Strong oxidizers, acids

10.6 HAZARDOUS DECOMPOSITION PRODUCTS
The substance emits toxic fumes of carbon monoxide, carbon dioxide, and oxide of sulfur and nitrogen under fire conditions. If involved in a fire, it may emit noxious and toxic fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION
ACUTE TOXICITY

Inhalation Dust may be irritant to the upper respiratory tract.

Ingestion Unlikely to be hazardous if swallowed.

Eye Contact Irritating to eyes.

Skin Contact Irritating to skin.

Long-Term Exposure No long-term effects have been identified.

Acute Oral Toxicity $LD_{50}$: >2000 mg/kg bw (rat)

OECD Guideline 423 (Acute Oral Toxicity – Acute Toxic Class Method)

Acute Dermal Toxicity $LD_{50}$: >2000 mg/kg bw (rat)

OECD Guideline 402 (Acute Dermal Toxicity)

Acute Inhalation Toxicity No study performed as exposure is highly unlikely due to low vapor pressure.

Skin Irritation/Corrosion Not an irritant per testing. Classification is according to CLP Harmonized Classification.

OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Eye Irritation/Corrosion Rabbit ca. 2(mean) (Time Point: 24, 48, and 72h) (fully reversible)

Skin Sensitization Not a sensitizer per testing. Classification is according to CLP Harmonized Classification.

OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ Cell Metagenicity

\textit{in vitro:} Negative; \textit{S. typhimurium} Doses: 1-1000 \(\mu\)g/plate

Equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay)

\textit{in vivo:} Negative; mouse and rat

C. Westmoreland and D.G. Gatehouse (1991)

Carcinogenicity Not a carcinogen

Borzelleca rat/mice
No component of this substance present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by IARC, ACGIH, NTP or OSHA.

Reproductive toxicity oral

NOAEL: 1000 mg/kg bw/day

OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT: Single Exposure

No Information Available

STOT: Repeated Exposure

No Information Available

SECTION 12 - ECOLOGICAL INFORMATION

12.1 TOXICITY

Toxicity to Fish

Fish (low toxicity to fish)
LC50: 100,8 mg/L
Exposure time: 96 h

Toxicity to Aquatic Invertebrates

Daphnia (Harmful to aquatic invertebrates)
EC50: 85,7 mg/L
Exposure time: 48 h

12.2 PERSISTANCE AND DEGREDABILITY

Readily Biodegradable (Method: OECD Guideline 301D)

12.3 BIOACCUMULATIVE POTENTIAL

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

12.4 MOBILITY IN SOIL

No further relative information available

Other Information
Elimination: COD Removal, adapted activated OECD test
Sludge Assessment: Readily biodegradable, according to appropriate OECD test.
Water Solubility Results: The substance is soluble in water.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

PBT: Not applicable
vPvB: Not applicable

12.6 OTHER ADVERSE EFFECTS

No further relevant information available
ECOTOXICAL EFFECTS

Remark
The substance is substantially removed in a biological treatment process. Tests show that the inhibition of aerobic waste water bacterial is unlikely.

Other information
Ecotoxicity: This environmental hazard assessment is based on information available on similar substances and actual test.

ADDITIONAL ECOLOGICAL INFORMATION

General Notes
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS
Dispose of according to local, state, and national guidelines. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

SECTION 14 - TRANSPORT INFORMATION

Substance is not classified as dangerous for transportation.

SECTION 15 – REGULATORY INFORMATION

CERCLA
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by CERCLA Title 40, Part 302.4.

SARA 311/312
Refer to Section 2 for OSHA Hazard Classification.

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.

TSCA
This substance is listed in the TSCA database.

California Proposition 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Safety Assessment
A Chemical Safety Assessment has been carried out

SEVESO Substance
No
SECTION 16 - OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of Last Revision: November 27, 2018


Abbreviations and Acronyms:
- EC50: Effective concentration, 50 percent
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent

Annexes:
- Annex 1: Exposure Scenario 1 – Manufacturing
- Annex 2: Exposure Scenario 2 – Manufacturing of fine chemicals
- Annex 3: Exposure Scenario 3 – Formulation
### Annex 1: Exposure Scenario 1 – Manufacturing

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>DURATION</th>
<th>RESPIRATORY PROTECTION</th>
<th>FURTHER RISK MANAGEMENT MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC 1: Use in a closed process, no likelihood of exposure</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PROC 2: Use in a closed, continuous process with occasional controlled exposure</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PROC 3: Use in a closed batch process (synthesis or formulation)</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PROC 4: Use in a batch and other process (synthesis) where opportunity for exposure arises</td>
<td>&gt; 4 hours (default)</td>
<td>90%</td>
<td>Gloves: 80% effective</td>
</tr>
<tr>
<td>PROC 8A: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</td>
<td>1 – 4 hours</td>
<td>90%</td>
<td>Gloves: 80% effective</td>
</tr>
<tr>
<td>PROC 8B: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</td>
<td>&gt; 4 hours (default)</td>
<td>90%</td>
<td>Gloves: 80% effective</td>
</tr>
</tbody>
</table>

**Setting** – Industrial; **Form** – Solid; **Dustiness** – High; **Ventilation** – Indoor w/o LEV;

### Annex 2: Exposure Scenario 2 – Manufacturing of Fine Chemicals

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>DURATION</th>
<th>RESPIRATORY PROTECTION</th>
<th>FURTHER RISK MANAGEMENT MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC 3: Use in a closed batch process (synthesis or formulation)</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PROC 4: Use in a batch and other process (synthesis) where opportunity for exposure arises</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PROC 15: Use of laboratory reagents in small scale laboratories</td>
<td>&gt; 4 hours (default)</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Setting** – Industrial; **Form** – Solid; **Dustiness** – High; **Ventilation** – Indoor w/o LEV;

### Annex 3: Exposure Scenario 3 – Formulation

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>DURATION</th>
<th>RESPIRATORY PROTECTION</th>
<th>FURTHER RISK MANAGEMENT MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC 4: Use in a batch and other process (synthesis) where opportunity for exposure arises</td>
<td>&gt; 4 hours (default)</td>
<td>90%</td>
<td>Gloves: 80% effective</td>
</tr>
</tbody>
</table>

**Setting** – Industrial; **Form** – Solid; **Dustiness** – High; **Ventilation** – Indoor w/o LEV;