Date of issue: 08/12/2017
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Safety Data Sheet

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

Product identifier:
- Product name: GR nitrite reagent
- SDS No. : 3509E-2

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
- Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN
- Division: Safety Management Dept. of Chemicals
- Telephone number: +81-6-6946-8061
- FAX: +81-6-6946-1607
- e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS
- Acute toxicity (Oral): Category 4
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2
- Skin sensitization: Category 1

(Note) GHS classification without description: Not classified/Classification not possible

Label elements

Signal word: Warning

HAZARD STATEMENT
- Harmful if swallowed
- Causes skin irritation
- Causes serious eye irritation
- May cause an allergic skin reaction

PRECAUTIONARY STATEMENT

Prevention
- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Wash contaminated parts thoroughly after handling.
- Wear protective gloves.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear eye protection/face protection.
- Do not eat, drink or smoke when using this product.

Response
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name:1-Naphthylamine
Content (%):1.0
Chemical formula:C10H9N
Chemicals No, Japan:4-321
CAS No.:134-32-7
MW:143.2
ECNO:205-138-7

Ingredient name:Sulfanilic acid
Content (%):10
Chemical formula:C6H7NO3S
Chemicals No, Japan:3-1971
CAS No.:121-57-3
MW:173.19
ECNO:204-482-5

Ingredient name:L(+)-Tartaric acid
Content (%):89
Chemical formula:C4H6O6
Chemicals No, Japan:2-1456
CAS No.:87-69-4
MW:150.09
ECNO:201-766-0

Note : The figures shown above are not the specifications of the product. The content of products may exceed the figures shown above.

4. First-aid measures

Descriptions of first-aid measures

IF INHALED

Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures
Extinguishing media
Suitable extinguishing media
Use appropriate extinguishing media suitable for surrounding facilities.
Unsuitable extinguishing media data is not available.
Specific hazards arising from the substance or mixture
Containers may explode when heated.
Fire may produce irritating, corrosive and/or toxic gases.
Advice for firefighters
Specific fire-fighting measures
Evacuate non-essential personnel to safe area.
Special protective equipment and precautions for fire-fighters
Wear fire/flame resistant/retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures
Personnel precautions, protective equipment and emergency procedures
Ventilate area until material pick up is complete.
Wear proper protective equipment.
Environmental precautions
Prevent spills from entering sewers, watercourses or low areas.
Avoid raising dust.
Methods and materials for containment and cleaning up
Sweep up, place in a bag and hold for waste disposal.
Preventive measures for secondary accident
Collect spillage.

7. Handling and storage
Precautions for safe handling
Preventive measures
(Exposure Control for handling personnel)
Avoid breathing dust/fume/gas/mist/vapors/spray.
(Protective measures against fire and explosion)
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
(Exhaust/ventilator)
Exhaust/ventilator should be available.
(Safety treatments)
Avoid contact with skin.
Avoid contact with eyes.
Safety Measures
Wear protective gloves, protective clothing or face protection.
Wear eye protection/face protection.
When using do not eat, drink or smoke.
Any incompatibilities
See "10.Stability and Reactivity"
Advice on general occupational hygiene
Wash contaminated parts thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.

Take off contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

Container and packaging materials for safe handling

Glass

8. Exposure controls/personal protection

Control parameters

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Powder

Color: White

Odor: Characteristic odor

pH data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Melting point/Freezing point data is not available.

Decomposition temperature data is not available.

Flammability (gases, liquids and solids) data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Vapor pressure data is not available.

Relative vapor density (Air=1) data is not available.

Density and/or relative density data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Insoluble

n-Octanol/water partition coefficient data is not available.

No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions
(1-Naphthylamine)
Decomposes on burning. This produces nitrogen oxides and carbon monoxide. The substance is a weak base. (ICSC 0518)
(Sulfanilic acid)
Decomposes on heating at 288° C, on burning and on contact with strong acids. This produces toxic fumes including nitrogen oxides and sulfur oxides. Reacts violently with strong bases. (ICSC 0569)
Conditions to avoid
Contact with incompatible materials.
Contact with fire source.
Incompatible materials
Strong acids, Strong bases
Hazardous decomposition products
Carbon oxides, Sulfur oxides, Nitrogen oxides

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11. Toxicological Information
Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[GHS Cat. Japan, base data]
(1-Naphthylamine)
rat LD50＝680mg/kg (HSDB, 2005)
[Company proprietary data]
(L(+)-Tartaric acid)
rat LD50=920 mg/kg
mouse LD50=4360 mg/kg
Acute toxicity (Dermal)
[GHS Cat. Japan, base data]
(1-Naphthylamine)
rat LD50＝447mg/kg (IUCLID, 2000)
Irritant properties
Skin corrosion/irritation
[Company proprietary data]
(L(+)-Tartaric acid)
Category 2
Serious eye damage/irritation
[GHS Cat. Japan, base data]
(Sulfanilic acid)
rabbit moderate irritation (IUCLID, 2000)
(1-Naphthylamine)
rabbit mild irritation (IUCLID, 2000 et al)
[Company proprietary data]
(L(+)-Tartaric acid)
Category 2A
Sensitization
Skin sensitization
[GHS Cat. Japan, base data]
(Sulfanilic acid)
cat. 1; IUCLID, 2000
Mutagenic effects data is not available.
Carcinogenicity
(1-Naphthylamine)

IARC-Gr.3 : Not Classifiable as a Human Carcinogen
Reproductive toxicity data is not available.
STOT
STOT-single exposure
[cat.2]
[GHS Cat. Japan, base data]
(1-Naphthylamine)
blood (HSDB, Access on Oct 2005)
STOT-repeated exposure data is not available.
Aspiration hazard data is not available.
Additional data
May cause lung disorders by massive inhalation of powdered substance.
-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Aquatic acute toxicity component(s) data
[GHS Cat. Japan, base data]
(Sulfanilic acid)
Fish (fat head minnow) LC50=100.4mg/L/96hr (ECETOC TRI91, 2003)
Water solubility
(1-Naphthylamine)
none (ICSC, 2000)
(Sulfanilic acid)
poor (ICSC, 2005)
Persistence and degradability
(Sulfanilic acid)
Not degrade rapidly (BOD_Degradation : 3% (CSCL DB, 1998))
Bioaccumulative potential
(1-Naphthylamine)
log Pow=2.25 (ICSC, 2000)
(Sulfanilic acid)
log Kow=-2.16 (PHYSPROP Database, 2018)
Mobility in soil
Mobility in soil data is not available.
Other adverse effects
Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging
Waste treatment methods
Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

Not applicable to UN No., UN CLASS
Not applicable to IMDG Code
Not applicable to IATA Dangerous Goods Regulations
Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances
Marine pollutants (yes/no) : no

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
US major regulations
Chemicals listed in TSCA Inventory
L(+)-Tartaric acid; Sulfanilic acid; 1-Naphthylamine
Other regulatory information
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling
Acute Tox. 4: H302 Harmful if swallowed
Skin Irrit. 2: H315 Causes skin irritation
Eye Irrit. 2: H319 Causes serious eye irritation
Skin Sens. 1: H317 May cause an allergic skin reaction
Reference Book
Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (60th Edition) 2019
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2019 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php
Supplier's data/information
General Disclaimer
This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.
The GHS classification data given here is based on current Japan official data (NITE published in 2018).