Date of issue: 27/06/2017

Safety Data Sheet

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

Product identifier:

Product name: Acetonitrile

Product code(SDS NO): 11255jis_E3-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-Cho, Koshigaya, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL HAZARDS

Flammable liquids: Category 2

HEALTH HAZARDS

Acute toxicity Dermal: Category 3

Serious eye damage/eye irritation: Category 2A

Germ cell mutagenicity: Category 2

Specific target organ toxicity - single exposure: Category 1(central nervous system, respiratory system)

Specific target organ toxicity - repeated exposure: Category 2(central nervous system, respiratory system, kidney, blood system, liver)

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements

Signal word: Danger

HAZARD STATEMENT

Highly flammable liquid and vapor

Toxic in contact with skin

Causes serious eye irritation

Suspected of causing genetic defects

Causes damage to organs after single exposure

May cause damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.
Wear protective gloves or protective clothing.
Wear protective gloves/eye protection/face protection.
Wear eye protection/face protection.
Use personal protective equipment as required.
Do not eat, drink or smoke when using this product.

Response

In case of fire: Use appropriate media for extinction.
Get medical advice/attention if you feel unwell.
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Take off immediately all 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.

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

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

Physical and Chemical hazards

Highly flammable liquid. Vapor/air mixture may explode.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Acetonitrile
Content(%):98.0<
Chemical formula:C2H3N
Chemicals No, Japan:2-1508
CAS No.:75-05-8
MW:41.05
ECNO:200-835-2

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical attention/advice if you feel unwell.

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.
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. Do NOT induce vomiting.

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

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Sore throat. Weakness. Chest tightness. Shortness of breath. Dizziness. Nausea. Vomiting. Convulsions.

※Symptoms may be delayed.

(Symptoms when skin and/or eye contact)

Redness (eyes). Pain (eyes).

Indication of any immediate medical attention and special treatment needed

Oxygen should be administered.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use foam, dry powder, CO2.

Unsuitable extinguishing media

Water may be effective for cooling, but may not effect extinguishment.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

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

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area after material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFTY: Ventilate closed spaces before entering.

Environmental precautions

Vapors may form explosive mixtures with air.

Vapor explosion hazard indoors, outdoors or in sewers.

Avoid release to the rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Use clean non-sparking tools to collect absorbed material.

All equipment used when handling the product must be grounded.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent entry into waterways, sewers, basements or confined areas.

A vapor suppressing foam may be used to reduce vapors.

7. Handling and storage
Precautions for safe handling
Preventive measures
(Exposure Control for handling personnel)
Do not breathe dust/fume/gas/mist/vapors/spray.
(Protective measures against fire & explosion)
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Exhaust/ventilator
Exhaust/ventilator should be available.
Safety treatments
Avoid contact with skin.
Avoid contact with eyes.
Avoid breathing dust, fume, gas, mist or vapor.
Safety Measures/Incompatibility
Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing or face protection.
Wear protective gloves and face protection.
Wear eye protection/face protection.
Use personal protective equipment as required.
When using do not eat, drink or smoke.
Conditions for safe storage, including any incompatibilities
Recommendation for storage
Store in a well-ventilated place. Keep container tightly closed.
Keep cool. Protect from sunlight.
Store locked up.

8. Exposure controls/personal protection
Control parameters
No control value data available
Adopted value
No Adopted value data available
ACGIH(1996) TWA: 20ppm (LRT irr)
Notation･･･Skin
OSHA-PEL
TWA 40ppm, 70mg/m3
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.
Wear positive pressure self-contained breathing apparatus (SCBA).
Hand protection
Wear protective gloves. Recommended material(s): butyl rubber
Consult with your glove and/or personnel equipment manufacturer for selection of

appropriate compatible materials.

Eye protection

Wear safety glasses with side-shields.

Wear eye/face protection.

Safety and Health measures

Wash ... thoroughly after handling.

Do not eat, drink or smoke when using this product.

Take off immediately all contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Liquid

Color: Colorless

Odor: Characteristic odor

pH data N.A.

Phase change temperature

Initial Boiling Point/Boiling point: 82℃

Melting point/Freezing point: -46℃

Decomposition temperature data N.A.

Flash point: (c.c.)2℃

Auto-ignition temperature: 524℃

Explosive properties: Flammability or explosive limit

lower limit: 3.0vol %

upper limit: 17vol %

Vapor pressure: 9.9 kPa (25℃)

Relative Vapor Density (Air=1): 1.4

Relative density of the Vapor/air-mixture at 20℃ (Air = 1): 1.04

Specific gravity/Density: 0.780～0.784g/ml (20℃)

Viscosity: 0.35cP(20℃)

Solubility

Solubility in water: 1000g/liter(25℃)

Solubility in solvent: Very soluble in ethanol and diethyl ether.

n-Octanol /water partition coefficient: log Pow-0.3

10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Highly flammable.

Possibility of hazardous reactions

The vapour mixes well with air, explosive mixtures are easily formed.

Decomposes on heating or on burning and on contact with hot surfaces. This produces toxic fumes.

Reacts violently with strong oxidants. This generates fire and explosion hazard.

Reacts with acids and bases. This produces toxic and flammable hydrogen cyanide.

Attacks some forms of plastic, rubber and coatings.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat.

Incompatible materials

Acids, Bases, Strong oxidizing agents

Hazardous decomposition products

Carbon oxides, Nitrogen oxides, Hydrogen chloride, Hydrogen cyanide.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50=2080 mg/kg (cal.)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

rabbit LD50=390 mg/kg (EHC 154, 1993)

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

vapor : rat LC50=26.8 mg/L/4hr (EHC 154, 1993)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

rabbit (EPA/OECD Guidline) : no skin irritation (EU-RAR No.18, 2002)

Serious eye damage /irritation

[GHS Cat. Japan, base data]

rabbit (average scores) : corneal opacity=1.45; conjunctival injection=3 (EU-RAR No.18, 2002)

No Allergenic and sensitizing effects data available

Germ cell mutagenicity

[GHS Cat. Japan, base data]

cat.2; DFGOT vol.19, 2003

Carcinogenicity

ACGIH-A4(1996) : Not Classifiable as a Human Carcinogen

EPA "Cannot Be Determined" to be carcinogenic(1996)

No reproductive toxicity data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT

STOT-single exposure

[cat.1]

[Japan published data]

CNS; respiratory apparatus/system (EPA_JP risk assessment vol.2, 2003)

STOT-repeated exposure

[cat.2]

[Japan published data]

CNS; respiratory apparatus/system; kidney; blood; liver (EPA_JP risk assessment vol.2, 2003)

No Aspiration hazard data available

12. Ecological Information

Toxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

Fish(top minnow) LC50 > 100mg/L/96hr (MOE_japan eco-toxicity tests of chemicals, 1995 and others)

Water solubility

1000 g/L (PHYSPROP Database, 2005)

Persistence and degradability

BOD(NH3)_Degradation : 65% (Registered chemicals data check & review, Japan)

Bioaccumulative potential

log Pow=-0.3 (ICSC, 2011)

13. Disposal considerations

Waste treatment methods

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

14. Transport Information

UN No, UN CLASS

UN number: 1648

UN proper shipping name: ACETONITRILE

Transport hazard class(es): 3

Packing group: II

ERG GUIDE NO.: 127

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Z…Acetonitrile

15. Regulatory Information

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

US major regulations

TSCA

Acetonitrile

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.
Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

Flam. Liq. 2: H225 Highly flammable liquid and vapor
Acute Tox. 3: H311 Toxic in contact with skin
Eye Irrit. 2A: H319 Causes serious eye irritation
Muta. 2: H341 Suspected of causing genetic defects
STOT SE 1: H370 Causes damage to organs after single exposure
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2017 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php
Supplier's data/information
Chemical Risk Information Platform (CHRIP)(NITE) http://www.safe.nite.go.jp/japan/db.html
GHS Classification Guidance for Enterprises 2013 Revised Edition (August, 2013,METI)

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

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 2015).