Date of issue: 05/12/2013
revised date 27/12/2016

Safety Data Sheet

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

Product identifier:

Product name: Acetone

Product code(SDS NO): 11265jis_E1-3

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

Serious eye damage/eye irritation: Category 2B

Reproductive toxicity: Category 2

Specific target organ toxicity - single exposure: Respiratory tract irritation Category 3

Specific target organ toxicity - single exposure: Narcosis Category 3

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

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

Label elements

Signal word: Danger

HAZARD STATEMENT

Highly flammable liquid and vapor

Causes eye irritation

Suspected of damaging fertility or the unborn child

May cause respiratory irritation

May cause drowsiness or dizziness

Causes 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.
Use only outdoors or in a well-ventilated area.
Wash contaminated parts thoroughly after handling.
Wear protective gloves/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.
Get medical advice/attention if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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 container tightly closed. 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

Substance/Mixture:

Substance

Ingredient name:Acetone
Content(%):99.0<
Chemical formula:C3H6O
Chemicals No, Japan:2-542
CAS No.:67-64-1
MW:58.08
ECNO:200-662-2

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. Rinse skin with water/shower.
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
In case of fire, use foam, dry powder, CO2, water in large amounts.
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
Ventilate area after material pick up is complete.
Wear proper protective equipment.
Environmental precautions
Avoid release to the rivers, lakes, ocean, 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.
Preventive measures for secondary accident
Collect spillage.

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, vapor, mist, or gas.
Safety Measures/Incompatibility
Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing or face protection.

Wear protective gloves and 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

Control value

Japan control value (2004) <= 500ppm

Adopted value

JSOH(1972) 200ppm; 470mg/m3
ACGIH(2014) TWA: 250ppm
STEL: 500ppm (URT & eye irr ; CNS impair)

OSHA-PEL

AcetoneTWA 1000ppm, 2400mg/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.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Safety and Health measures

Wash ... thoroughly after handling.
Do not eat, drink or smoke when using this product.

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: 56℃
Melting point/Freezing point: -95℃
Decomposition temperature data N.A.
Flash point: (C.C.) -18℃
Auto-ignition temperature: 465℃

Explosive properties: Flammability or explosive limit

lower limit: 2.1 vol %
upper limit: 13 vol %

Vapor pressure: 24 kPa (20℃)

Relative Vapor Density (Air=1): 2.0
Relative density of the Vapor/air-mixture at 20℃ (Air = 1): 1.2
Specific gravity/Density: 0.789～0793 g/ml (20℃)
Solubility
Solubility in water: miscible
Solubility in solvent: Very soluble in ethanol, diethyl ether.
n-Octanol /water partition coefficient: log Pow-0.24

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 is heavier than air and may travel along the ground; distant ignition possible.
Contact with strong oxidants such as acetic acid, nitric acid and hydrogen peroxide generates explosive peroxides.
Reacts with chloroform and bromoform under basic conditions. This generates fire and explosion hazard.
Conditions to avoid
Contact with incompatible materials.
Open flames. Heat.
Incompatible materials
Acids, Bases, Strong oxidizing agents
Hazardous decomposition products
Carbon oxides

11. Toxicological Information

Information on toxicological effects
Acute toxicity
Acute toxicity (Oral)
[GHS Cat. Japan, base data]
rat LD50=5800mg/kg(SIDS, 2002 et al.)
Acute toxicity (Dermal)
[GHS Cat. Japan, base data]
rabbit LD50>7400mg/kg(SIDS, 2002 et al.)
Acute toxicity (Inhalation)
[GHS Cat. Japan, base data]
vapor; rat LC50=32000ppm/4hr(SIDS, 2002 et al.)
Labor standard law, Japan; Toxic
Acetone
Irritant properties
Skin corrosion/irritation
[GHS Cat. Japan, base data]
rabbit : not irritating(SIDS, 2002 et al.)
Serious eye damage /irritation
[GHS Cat. Japan, base data]
rabbit : Although a corneal epithelium is destroyed, substrate is not destroyed, and destruction of a corneal epithelium will be recovered in 4～6 days (SIDS, 2002).
No Allergenic and sensitizing effects data available

Germ cell mutagenicity

[GHS Cat. Japan, base data]

mouse/hamster_ micronucleus assay : Negative （SIDS, 2002 et al.）

Reverse-mutation assay in bacteria(Ames test) :Negative（SIDS, 2002 et al.）

Chromosome aberration test :Negative（SIDS, 2002 et al.）

Carcinogenicity

ACGIH-A4(2014) : Not Classifiable as a Human Carcinogen

EPA "Inadequate Information to Assess Carcinogenic Potencial"(2005)

Reproductive toxicity

[GHS Cat. Japan, base data]

cat.2; EHC 207, 1998

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

STOT

STOT-single exposure

[cat.3(resp. irrit.)]

[Japan published data]

Respiratory tract irritation (ACGIH 7th, 2001)

[cat.3(drow./dizz.)]

[Japan published data]

Narcosis (ACGIH 7th, 2001)

STOT-repeated exposure

[cat.1]

[Japan published data]

CNS; respiratory system; digestive apparatus/alimentary system (ATSDR Addendum, 2011)

No Aspiration hazard data available

12. Ecological Information

Toxicity

Aquatic toxicity

Aquatic acute toxicity component(s) data

[GHS Cat. Japan, base data]

Fish（fat head minnow） LC50 > 100mg/L/96hr （EHC207, 1998）

Aquatic chronic toxicity component(s) data

[GHS Cat. Japan, base data]

BOD_Degradation : Avg.96% (Registered chemicals data check & review, Japan)

Water solubility

1000 g/L (PHYSPROP Database, 2005)

Bioaccumulative potential

log Pow=-0.24 (ICSC, 2009)

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: 1090

UN proper shipping name: ACETONE

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･･･Acetone

Flammable Liquid･･･Acetone

15. Regulatory Information

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

US major regulations

TSCA

Acetone

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

Eye Irrit. 2B: H320 Causes eye irritation

Repr. 2: H361 Suspected of damaging fertility or the unborn child

STOT SE 3: H335 May cause respiratory irritation

STOT SE 3: H336 May cause drowsiness or dizziness

STOT RE 1: H372 Causes 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 18th edit., 2013 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)

2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)

2016 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).