Date of revision : 2022/09/01

Safety Data Sheet

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

Product identifier:

Product name: Super Check Developer UD-ST Aerosol 450 Type

Product code (SDS NO): CD12015_E1-7

Relevant identified uses of the product: Non Destructive Testing

Details of the supplier of the safety data sheet

Manufacturer/Supplier: MARKTEC CORPORATION

Address: 17-35,OMORI-NISHI, 4-Chome, OTA-Ku, TOKYO 143-0015 JAPAN

Telephone number: +81-3-3762-4453

FAX: +81-3-3768-3958

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Aerosols: Category 1

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 2

Hazardous to the aquatic environment (Long-term): Category 2

Label elements

Signal word: Danger

HAZARD STATEMENT

Extremely flammable aerosol

Pressurized container: may burst if heated

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT

Prevention

Avoid release to the environment.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not spray on an open flame or other ignition source.

Keep container tightly closed.

Do not pierce or burn, even after use.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Use personal protective equipment as required.

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

Response

Collect spillage.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Protect from sunlight. Do not expose to temperatures exceeding 40℃.

Disposal

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

Specific Physical and Chemical hazards

Contain flammable gas under pressure. Risk of explosion by heating or shock.

Contain flammable gas. Gas/air mixture may explode.

3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name	Content (%)	CAS No.
Ethyl alcohol	35 - 45	64-17-5
Propellant Gas：Butane	20 - 30	106-97-8
Propellant Gas：Propane	10 - 20	74-98-6
Heptane	8.7	142-82-5
Inorganic powder A	1 - 10	Registered
Inorganic powder B	1 - 5	Registered
Amides, coco, N,N-bis(hydroxyethyl)	1.0	68603-42-9
Diethanolamine	< 0.5	111-42-2

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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

IF ON SKIN (or hair)

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.

Do not let the victim rub his eyes.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER/doctor/physician.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use foam, alcohol-resistant foam, dry powder, CO2 to extinguish.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Be careful not to slip on spilled area.

Eliminate all sources of ignition and ventilate the area.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Preventive measures for secondary accident

Collect spillage.

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

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

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 and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not spray on an open flame or other ignition source.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Vapors may cause dizziness or suffocation.

Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

Do not pierce or burn, even after use.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Wash hands thoroughly after handling.

Storage

Conditions for safe storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Do not place in a place where rust is likely to occur.

(Incompatible storage condition)

Protect from sunlight. Do not expose to temperatures exceeding 40℃.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection

Control parameters

Adopted value

(Ethyl alcohol)

ACGIH(2009) STEL: 1000ppm (URT irr)
(Propellant Gas：Butane)
ACGIH(2017) STEL: 1000ppm(EX) (CNS impair)
(Propellant Gas：Propane)
ACGIH: See Appendix F: Minimal Oxygen Content (D,EX) (Asphyxia)
(Heptane)
ACGIH(1979) TWA: 400ppm;
STEL: 500ppm (CNS impair; URT irr)
(Diethanolamine)
ACGIH(2009) TWA: 1mg/m3(IFV) (Liver & kidney dam)

Notation
(Diethanolamine)
Skin

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Individual protection measures

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear protective clothing.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Liquid
Color: White
Odor: Alcoholic odor
Melting point/Freezing point data is not available.
Boiling point or initial boiling point: 78℃
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit data is not available.
Flash point: -4℃
Auto-ignition temperature: 204℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity: Kinematic viscosity <= 20.5 mm2/s
Solubility:

Solubility in water: Soluble

n-Octanol/water partition coefficient data is not available.
Vapor pressure data is not available.
Density and/or relative density: 0.83g/cm3(15℃)
Relative vapor density (Air=1) data is not available.
Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Vapors may catch fire and explode.

Conditions to avoid

Conditions to avoid data is not available.

Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

Hazardous decomposition products

Carbon oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity data is not available.

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[IARC]

(Ethyl alcohol)

Group 1 : Carcinogenic to humans

(Amides, coco, N,N-bis(hydroxyethyl))

Group 2B : Possibly carcinogenic to humans

(Diethanolamine)

Group 2B : Possibly carcinogenic to humans

[ACGIH]

(Ethyl alcohol)

A3(2009) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

(Diethanolamine)

A3(2009) : Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive toxicity data is not available.

STOT

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

Information on other hazards

Data on the preparation itself is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

Water solubility

(Ethyl alcohol)

miscible (ICSC, 2000)

(Propellant Gas：Butane)

0.0061 g/100 ml (20℃) (ICSC, 2003)

(Propellant Gas：Propane)

0.007 g/100 ml (20℃) (ICSC, 2003)

(Heptane)

none (ICSC, 1997)
(Inorganic powder A)
very poor (14 mg/l , 25℃) (ICSC, 2012)
(Diethanolamine)
very good (ICSC, 2002)

Persistence and degradability

(Ethyl alcohol)
Degrade rapidly (BOD_Degradation : 89% (METI existing chemical safety inspections, 1993))
(Heptane)
Degrade rapidly (BOD_Degradation : 101% (METI existing chemical safety inspections, 1996))
(Diethanolamine)
TOC_Degradation : 96.7% (METI existing chemical safety inspections)

Bioaccumulative potential

(Ethyl alcohol)
log Pow=−0.32 (ICSC, 2000)
(Propellant Gas：Butane)
log Pow=2.89 (ICSC, 2003)
(Propellant Gas：Propane)
log Pow=2.36 (ICSC, 2003)
(Heptane)
log Pow=4.66 (ICSC, 1997)
(Diethanolamine)
log Pow=−1.43 (PHYSPROP DB, 2005)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Additional data

Data on the preparation itself 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

Avoid release to the environment.
Dispose of contents/container in accordance with local/national regulation.

Contaminated packing

Do not pierce or burn, even after use.

14. Transport Information

UN No., UN CLASS

UN No. or ID No.: 1950
UN Proper Shipping Name :
AEROSOLS, flammable
Class or division (Transport hazard class) : 2.1
Packing group : Not applicable
ERG GUIDE No.: 126

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

15. Regulatory Information

Other regulatory information

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN
IATA Dangerous Goods Regulations (62nd Edition) 2021
2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2022 TLVs and BEIs. (ACGIH)
Supplier's data/information

General Disclaimer

To the best of our knowledge, the information contained here in is accurate. However, we assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of user. All material may present unknown hazards and should be used in caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist.

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 GHS classification data given here is based on current EU official data (Consolidated version of the CLP Regulation published in 1.3.2022 and Commission delegated regulation (EU) 2021/849 (ATP17)).