

Date of revision : 2025/04/03

Safety Data Sheet

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

Product identifier:

Product name: Super Check Developer UD-T•V Aerosol 450 Type

Product code (SDS NO): CD12020_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

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Section 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Aerosols: Category 1

HEALTH HAZARDS

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2

Reproductive toxicity: Category 1B

Specific target organ toxicity – single exposure: Category 3 (Narcotic effects)

Aspiration hazard: Category 1

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 1

Hazardous to the aquatic environment, long-term (chronic): Category 1

Label elements



Signal word: Danger

HAZARD STATEMENT

Extremely flammable aerosol

Pressurized container: may burst if heated

Causes skin irritation

Causes serious eye irritation

May damage fertility or the unborn child

May cause drowsiness or dizziness

May be fatal if swallowed and enters airways

Very toxic to aquatic life

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

Response

Collect spillage.
 Get medical advice/attention if you feel unwell.
 IF exposed or concerned: Get medical advice/attention.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF ON SKIN: Wash with plenty of soap and water.
 If skin irritation occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 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.
 Do NOT induce vomiting.
 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool.
 Protect from sunlight. Do not expose to temperatures exceeding 40°C.

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.

Section 3. Composition/information on ingredients

Mixture/Substance selection:

Mixture

Ingredient name	Content (%)	CAS No.
Cyclohexane	30	110-82-7
Propellant Gas : Butane	20 – 30	106-97-8
Propellant Gas : Propane	20 – 30	74-98-6
Ethyl alcohol	10 – 20	64-17-5
Inorganic powder A	1 – 10	Registered
Inorganic powder B	0.1 – 2	Registered
1-Propanol	0.1 – 2	71-23-8
2-Propanol	< 1	67-63-0
1-Methyl-2-pyrrolidinone	< 1	872-50-4
Surfactant	0.1 – 2	Registered
Diethanolamine	< 0.5	111-42-2

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

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

Section 4. First-aid measures

Descriptions of first-aid measures

General measures

- Get medical advice/attention if you feel unwell.
- IF exposed or concerned: Get medical advice/attention.
- Call a POISON CENTER/doctor/physician 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 INHALED: 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 skin irritation 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

- Do NOT induce vomiting.
- Rinse mouth. Do NOT induce vomiting.
- Immediately call a POISON CENTER/doctor/physician.

Section 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.

Section 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.

Section 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/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

Do not pierce or burn, even after use.

Any incompatibilities data is not available.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Take off contaminated clothing and wash it before reuse.

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°C.

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

Section 8. Exposure controls/personal protection

Control parameters

Adopted value

ACGIH

(Cyclohexane)

TWA: 100ppm (CNS impair; eye & URT irr)

(Propellant Gas: Butane)

STEL: 1000ppm(EX) (CNS impair)

(Propellant Gas: Propane)

See Appendix F: Minimal Oxygen Content(D, EX) (Asphyxia)

(Ethyl alcohol)

STEL: 1000ppm (URT irr)

(1-Propanol)

TWA: 100ppm (Eye & URT irr)

(2-Propanol)

TWA: 200ppm; STEL: 400ppm (Eye & URT irr; CNS impair)

(Diethanolamine)

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.

Section 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: 81°C

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

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

Flash point: -18°C

Auto-ignition temperature: 260°C

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity: Kinematic viscosity $\leq 20.5 \text{ mm}^2/\text{s}$

Solubility:

Solubility in water: Insoluble

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

Vapor pressure data is not available.

Density and/or relative density: 0.82g/cm³(15°C)

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

Particle characteristics data is not available.

Section 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

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(Diethanolamine)

Category 4

Irritant properties

Skin corrosion/irritation

[Product]

Category 2, Causes skin irritation

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(Cyclohexane)

Category 2

(1-Methyl-2-pyrrolidinone)

Category 2

(Diethanolamine)

Category 2

Serious eye damage/irritation

[Product]

Category 2, Causes serious eye irritation

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(1-Propanol)

Category 1

(2-Propanol)

Category 2

(1-Methyl-2-pyrrolidinone)

Category 2

(Diethanolamine)

Category 1

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenicity

[Data for components of the product]

[IARC]

(Ethyl alcohol)

Group 1 : Carcinogenic to humans

(2-Propanol)

Group 3 : Not classifiable as to its carcinogenicity to humans

(Surfactant)

Group 2B : Possibly carcinogenic to humans

(Diethanolamine)

Group 2B : Possibly carcinogenic to humans

[ACGIH]

(Ethyl alcohol)

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans

(1-Propanol)

A4: Not Classifiable as a Human Carcinogen

(2-Propanol)

A4: Not Classifiable as a Human Carcinogen

(Diethanolamine)

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive toxicity

[Product]

Category 1B, May damage fertility or the unborn child

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(1-Methyl-2-pyrrolidinone)

Category 1B

Specific target organ toxicity (STOT)

STOT-single exposure

[Product]

Category 3, May cause drowsiness or dizziness

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(Cyclohexane)

Category 3 (Narcotic effects)

(1-Propanol)

Category 3 (Narcotic effects)

(2-Propanol)

Category 3 (Narcotic effects)

(1-Methyl-2-pyrrolidinone)

Category 3 (Respiratory tract irritation)

STOT-repeated exposure

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(Diethanolamine)

Category 2 (No target organ information)

Aspiration hazard

[Product]

Category 1, May be fatal if swallowed and enters airways

[Data for components of the product]

[Table 3 of Annex VI to the CLP Regulations]

(Cyclohexane)

Category 1

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 1, Very toxic to aquatic life

Category 1, Very toxic to aquatic life with long lasting effects

[Data for components of the product]

Hazardous to the aquatic environment, short-term (acute)

[Table 3 of Annex VI to the CLP Regulations]

(Cyclohexane)

Category 1

Hazardous to the aquatic environment, long-term (chronic)

[Table 3 of Annex VI to the CLP Regulations]

(Cyclohexane)

Category 1

Water solubility

(Cyclohexane)
 0.0058 g/100 mL (25°C) (source: ICSC, 2011)
 (Propellant Gas: Butane)
 0.0061 g/100 mL (20°C) (source: ICSC, 2003)
 (Propellant Gas: Propane)
 0.007 g/100 mL (20°C) (source: ICSC, 2003)
 (Ethyl alcohol)
 miscible (source: ICSC, 2018)
 (Inorganic powder B)
 0.01 g/100 mL (20°C) (source: ICSC, 2010)
 (1-Propanol)
 not poorly water-soluble (1000000 mg/L) (source: NITE)
 (2-Propanol)
 In water, infinitely soluble (25°C) (source: NITE)
 (1-Methyl-2-pyrrolidinone)
 not poorly water-soluble (100000 mg/L) (source: NITE)
 (Diethanolamine)
 very good (source: ICSC, 2002)

Persistence and degradability

[Data for components of the product]

(Cyclohexane)
 Rapidly degradable (Degradation rate: 77% (by BOD)) (OECD TG 301F, GLP) (source: NITE)
 (Ethyl alcohol)
 Rapidly degradable (Degradation rate: 89% (by BOD)) (source: NITE)
 (2-Propanol)
 Rapidly degradable (Degradation rate: 86% (by BOD)) (source: NITE)
 (1-Methyl-2-pyrrolidinone)
 Rapidly degradable (Degradation rate: 73%, 94% (by BOD); 96% (by TOC); 100% (by GC))
 (source: NITE)
 (Diethanolamine)
 Rapidly degradable (Degradation rate: 51.4% (by BOD); 96.7% (by TOC); 100% (by HPLC))
 (source: NITE)

Bioaccumulative potential

[Data for components of the product]

(Cyclohexane)
 log Pow: 3.4 (source: ICSC, 2011)
 (Propellant Gas: Butane)
 log Pow: 2.89 (source: ICSC, 2003)
 (Propellant Gas: Propane)
 log Pow: 2.36 (source: ICSC, 2003)
 (Ethyl alcohol)
 log Pow: -0.32 (source: ICSC, 2018)
 (1-Propanol)
 log Pow: 0.25 (source: ICSC, 1999)
 (2-Propanol)
 log Pow: 0.05 (source: ICSC, 2020)
 (1-Methyl-2-pyrrolidinone)
 log Pow: -0.38 (source: ICSC, 2014)
 (Diethanolamine)
 log Pow: -1.43 (source: NITE)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 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.

Section 14. Transport Information

UN No., UN CLASS

UN Number or ID Number : 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

Section 15. Regulatory Information

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

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).

Section 16. Other information

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN

IATA Dangerous Goods Regulations (66th Edition) 2025

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2025 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 01/12/2023 and Commission delegated regulation (EU) 2024/197 (ATP21)).