

22115-1003


SAFETY DATA SHEET

SDS :Copic AIR CAN D60N
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SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier**
Product Name **Copic AIR CAN D60N**
- 1.2 Recommended use of the chemical and restrictions on use**
Recommended use Air brush
Restrictions on use Any uses other than recommended use
- 1.3 Supplier's details**
Manufacturer Too Marker Products Inc.
1-4-4 Higashiyama, Meguro-ku. Tokyo, Japan
Telephone +81-3-6412-8600
E-mail address main-info@toomarker.co.jp
- 1.4 Emergency telephone number** +81-3-6412-8600 (Available Monday to Friday between 09:00 – 17:30 Japan time)

SECTION 2: HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture**
Physicochemical hazard Gases under pressure, Liquefied gas (Simple Asphyxiant)
- 2.2 GHS label elements, including precautionary statements**
- Hazard pictogram** 
- Signal word** Warning
- Hazard statement** Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.
- Prevention** Use personal protective equipment as required.
- Storage** Protect from sunlight. Store in a well-ventilated place.
- 2.3 Hazards Not Otherwise Classified (HNOC):** Carcinogenicity
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	CAS No.	Concentration
trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	100.00 %

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SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Use oxygen as required, provided a qualified operator is present. Call a physician.
Skin Contact	Rapid evaporation of the liquid may cause frostbite. If there is evidence of frostbite, bathe (do not rub) with lukewarm (not hot) water. If water is not available, cover with a clean, soft cloth or similar covering. Call a physician if irritation develops or persists.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of frostbite water should be lukewarm, not hot. If symptoms persist, call a physician.
Ingestion	Unlikely route of exposure. As this product is a gas, refer to the inhalation section. Do not induce vomiting without medical advice. Call a physician immediately.

4.2 Indication of immediate medical attention and special treatment needed, if necessary	Treat frost-bitten areas as needed.
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SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water mist Dry powder Foam Carbon dioxide (CO ₂)
5.2 Specific hazards arising from the chemical	Contents under pressure. Heating will cause pressure rise with risk of bursting Cool closed containers exposed to fire with water spray. Product is not combustible under normal conditions. However, this material can ignite when mixed with air under pressure and exposed to strong ignition sources. Do not allow run-off from fire fighting to enter drains or water courses. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Some risk may be expected of corrosive and toxic decomposition products. Fire may cause evolution of: Hydrogen fluoride Carbon oxides Carbonyl halides Halogenated compounds
5.3 Special protective actions for fire-fighters	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit. No unprotected exposed skin areas. Exposure to decomposition products may be a hazard to health.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

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| 6.1 | Personal precautions, protective and equipment emergency procedures | Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Wear personal protective equipment. Unprotected persons must be kept away.
Remove all sources of ignition.
Avoid skin contact with leaking liquid (danger of frostbite).
Ventilate the area.
After release, disperses into the air.
Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
Avoid accumulation of vapours in low areas.
Unprotected personnel should not return until air has been tested and determined safe. |
| 6.2 | Environmental precautions | Prevent further leakage or spillage if safe to do so.
The product evaporates readily.
Prevent spreading over a wide area (e.g. by containment or oil barriers). |
| 6.3 | Methods and materials for containment and cleaning up | Do not direct water spray at the point of leakage.
Allow to evaporate. |

SECTION 7: HANDLING AND STORAGE

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|--------------|---|---|
| 7.1 | Handling | |
| 7.1.1 | Precautions for safe handling | Handle with care.
Avoid inhalation of vapour or mist.
Do not get in eyes, on skin, or on clothing.
Wear personal protective equipment.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
Follow all standard safety precautions for handling and use of compressed gas cylinders.
Use authorized cylinders only.
Protect cylinders from physical damage.
Do not puncture or drop cylinders, expose them to open flame or excessive heat.
Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.
Do not remove screw cap until immediately ready for use.
Always replace cap after use. |
| 7.1.2 | Advice on protection against fire and explosion | Do not spray on a naked flame or any incandescent material.
Keep away from direct sunlight.
Fire or intense heat may cause violent rupture of packages.
Vapours may form explosive mixtures with air. |
| 7.2 | Storage | |
| 7.2.1 | Conditions for safe storage, including any incompatibilities | The product is not easily combustible.
Keep containers tightly closed in a cool, well-ventilated place.
Keep away from direct sunlight.
Protect cylinders from physical damage.
Store away from incompatible substances. |

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- 7.2.2 Further information on storage conditions** Keep only in the original container at temperature not exceeding 50°C
- 7.2.3 Advice on common storage** Do not store together with:
Oxidizing agents

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 EXPOSURE CONTROLS**
- Protective measures** Do not breathe vapour.
Avoid contact with skin, eyes and clothing.
Ensure that eyewash stations and safety showers are close to the workstation location.
- Engineering measures** Local exhaust
- 8.2. Individual protection measures, such as personal protective equipment (PPE)**
- Eye/face protection** Goggles
- Hand protection** Protective gloves
- Skin and body protection** Impervious clothing
Wear cold insulating gloves/ face shield/ eye protection.
- Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.
Wear a positive-pressure supplied-air respirator.
- Hygiene measures** Avoid breathing vapours, mist or gas.
Keep working clothes separately.

8.3. Exposure Guidelines

Chemical name	CAS No.	Value	Control parameters	Update	Basis
trans-1,3,3,3-Tetrafluoroprop-1-ene	29118-24-9	TWA : Time weighted average	(800 ppm)	2012	WEEL:US. OARS. WEELs Workplace Environmental Exposure Level Guide

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties**
- Physical state Liquefied gas
- Color colourless
- Odor slight ether-like
- pH Note: neutral
- Boiling point/boiling range -19 °C
- Flash point Note: Not applicable
- Lower explosion limit Note: No LEL and UEL was assigned at standard testing conditions, 20°C, Exhibits flame limits at temperatures in excess of 28° C.
- Upper explosion limit Note: No LEL and UEL was assigned at standard testing conditions, 20°C., Exhibits flame limits at temperatures in excess of 28° C.
- Vapor pressure 4,271 hPa at 20 °C(68 °F)
11,152 hPa at 54.4 °C(129.9 °F)
- Vapor density 4 Note: (Air = 1.0)

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Density	1.17 g/cm ³ at 21.1 °C
Water solubility	0.373 g/l
Partition coefficient: n-octanol/water	log Pow: 1.6
Ignition temperature	368 °C
	Method: Auto-ignition temperature

SECTION 10: STABILITY AND REACTIVITY

10.1	Chemical stability	Stable under normal conditions.
10.2	Possibility of hazardous reactions	Hazardous polymerisation does not occur.
10.3	Conditions to avoid	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C. Can form a combustible mixture with air at pressures above atmospheric pressure. Do not mix with oxygen or air above atmospheric pressure.
10.4	Incompatible materials	Reactions with alkali metals.
10.5	Hazardous decomposition products	Halogenated compounds Carbon oxides Hydrogen fluoride Carbonyl halide

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	
Acute Oral toxicity	Note: Not applicable study technically not feasible
Acute Inhalation toxicity	Species: Mouse Note: Acute (4-Hour) Inhalation Toxicity Screening Study (mouse): No lethality at >100,000 ppm. LC50: > 207000 ppm Exposure time: 4 h Species: Rat
Acute Dermal toxicity	Note: no data available study technically not feasible
Skin irritation	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404
Eye irritation	Note: no data available study technically not feasible
Sensitisation	Cardiac sensitization Species: dogs Result: Did not cause sensitisation on laboratory animals. Species: human Result: Does not cause skin sensitisation.
Repeated dose toxicity	Species: Rat Application Route: Inhalation Exposure time: 13 Weeks Note: Causes mild effects on the heart. NOEL 5,000 ppm

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Genotoxicity in vitro

Test Method: Chromosome aberration test in vitro
Cell type: Human lymphocytes
Result: negative
Method: OECD Test Guideline 473

Test Method: Ames test
Result: negative

Genotoxicity in vivo

Test Method: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Cell type: Micronucleus
Application Route: Inhalation
Method: OECD Test Guideline 474
Result: negative

Reproductive toxicity

Test Method: Two-generation study
Species: Rat
Application Route: Inhalation
NOEL: > 20,000 ppm
NOEL: > 20,000 ppm
Method: OECD Test Guideline 416

Teratogenicity

Species: Rabbit
Method: OECD 416
Note: Did not show teratogenic effects in animal experiments.

Species: Rat
Method: OECD 416
Note: Did not show teratogenic effects in animal experiments.

Teratogenicity

Species: Rat Application Route: Inhalation
NOAEC: 15,000 ppm
Method: OECD Test Guideline 414

Elimination information (persistence and degradability)

Bioaccumulation

Note: No bioaccumulation is to be expected (log Pow <= 4).

Biodegradability

aerobic Result: Not readily biodegradable.

Further information on ecology Additional ecological information

no data available

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity effects		
	Toxicity to fish	static test LC0: > 117 mg/l Exposure time: 96 h Species: Cyprinus carpio (Carp) Method: OECD Test Guideline 203
	Toxicity to daphnia and other aquatic invertebrates	static test EC50: > 160 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202
	Toxicity to algae	Growth rate NOEC: > 170 mg/l Exposure time: 72 h Species: Algae Method: OECD Test Guideline 201
		Biomass NOEC: > 170 mg/l Exposure time: 72 h Species: Algae Method: OECD Test Guideline 201
12.2 Elimination information (persistence and degradability)		
	Bioaccumulation Biodegradability	Note: No bioaccumulation is to be expected (log Pow <= 4). aerobic Result: Not readily biodegradable.
12.3 Further information on ecology	Additional ecological information	no data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods	Observe all Federal, State, and Local Environmental regulations.
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SECTION 14: TRANSPORT INFORMATION

14.1 DOT		
	UN/ID No.	UN 3163
	Proper shipping name	LIQUEFIED GAS, N.O.S. (trans-1,3,3,3-Tetrafluoroprop-1-ene)
	Class	2.2
	Packing group	
	Hazard Labels	2.2
14.2 IATA		
	UN/ID No.	UN 3163
	Description of the goods	LIQUEFIED GAS, N.O.S. (trans-1,3,3,3-Tetrafluoroprop-1-ene)
	Class	2.2
	Hazard Labels	2.2
	Packing instruction (cargo aircraft)	200
	Packing instruction (passenger aircraft)	200

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14.3	IMDG	
	UN/ID No.	UN 3163
	Description of the goods	LIQUEFIED GAS, N.O.S. (trans-1,3,3,3-Tetrafluoroprop-1-ene)
	Class	2.2
	Hazard Labels	2.2
	EmS Number	F-C, S-V
	Marine pollutant	no

SECTION 15: REGULATORY INFORMATIONSECTION

15.1	Inventories	
	US. Toxic Substances Control Act	On TSCA Inventory
	Australia. Industrial Chemical (Notification and Assessment) Act	On the inventory, or in compliance with the inventory
	Canada. Canadian Environmental Protection Act(CEPA). Domestic Substances List (DSL)	All components of this product are on the Canadian DSL
	Japan. Kashin-Hou Law List	On the inventory, or in compliance with the inventory
	Korea. Existing Chemicals Inventory (KECI)	On the inventory, or in compliance with the inventory
	Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	Not in compliance with the inventory
	China. Inventory of Existing Chemical Substances	On the inventory, or in compliance with the inventory
	New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	On the inventory, or in compliance with the inventory
15.2	National regulatory information	
	SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
	SARA 313 Components	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
	SARA 311/312 Hazards	Acute Health Hazard Sudden Release of Pressure Hazard
	California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

	HMIS III:	NFPA:
Health hazard	1	2
Flammability	1	1
Physical Hazard	0	
Instability		0

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Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Previous Issue Date: 06/19/2018

OTHER INFORMATION

(1) To the best of our knowledge as of the date hereof, the information contained herein is accurate. However, no warranty is made with respect to, and Too Marker Products Inc. or any of its subsidiaries, assumes no liability for lack of, the accuracy or completeness of the information contained herein.

(2) The precautionary measures in handling the material which is the subject of this data sheet ("Material") as mentioned herein are based upon an assumption that the Material is handled in an ordinary way. In case of special handling, extra or different safety measures suitable thereof need to be taken.

(3) It is your own responsibility to examine and confirm if the Material meets or suits any regulation or restriction in your country or of your local authority.

(4) Final determination of safety and suitability of the Material for your intended use is your sole responsibility. The Material may present unknown hazards, and therefore should be handled with adequate caution. Although certain hazards are described herein, neither Too Marker Products Inc. nor any of its subsidiaries guarantees that they are the only hazards which exist in relation to the Material.