~~Safety Data Sheet~~

Issue date 2018/6/19

1. Product and company information

1-1 Product identification

Product name	COPIC AIR CAN D60N
Product classification	Air brush

1-2 Company information

Company name	Too Marker Products. Inc.
Address	7-22-17 Nishigotanda, Shinagawa-ku,
Telephone No	Tokyo 03-5719-2655

1-3 Product listing:

Description	EAN Code	COPIC Air Brushing system w/D60N Air Can
COPIC Air Brushing system AIR CAN D60N	4511338055106	ACTIVE (as of Aug 2019)
COPIC Air Brushing system AIR CAN SET	4511338055182	

2. Summary of the hazard and the harmfulness

GHS classification

Physicochemical hazard		
	Combustible・inflammable aerosol	Not classified
Harmfulness to the health		
	Acute toxicity (oral)	Not applicable for the classification
	Acute toxicity (dermal)	Not applicable for the classification
	Acute toxicity (inhalation:gas)	Not applicable for the classification
	Acute toxicity(inhalation:vapor)	Not applicable for the classification
	Acute toxicity(inhalation:dust, mist)	Not applicable for the classification
	Skin corrosion・irritation	Not applicable for the classification
	Serious damage・irritation on an eye	Not applicable for the classification
	Respiratory sensitization	Not applicable for the classification
	Skin sensitization	Not applicable for the classification
	Germ cell mutagenicity	Not applicable for the classification
	Carcinogenicity	Not applicable for the classification
	Reproduction toxicity	Not applicable for the classification
	Specific target organ・systemic toxicity (single exposure)	Not applicable for the classification
	Specific target organ・systemic toxicity (repeated exposure)	Not applicable for the classification
	Aspiration harmfulness	Not applicable for the classification
Harmfulness to the environment		
	Aquatic environmental acute harmfulness	Not applicable for the classification
	Aquatic environmental chronic harmfulness	Not applicable for the classification

GHS label factor	No GHS label factor
Signal word	No signal word
Hazard and harmfulness information	High pressure container:Risk of the burst if heated.
Other harmfulness information	The suffocation can be caused in the closed space in the presence of the high concentrated gas. There is the risk that the inhalation of gas can cause the cardiac arrhythmia. In case that the product in gas gets into an eye and the product in liquid and mist contacts with the skin, there is the risk of inflammation.
Caution	
Safety measure	Don't use the product until the user reads and understands all of the safety cautions. Wear the protective glove/cloth and protective glass. Use only outside or at the good ventilated area. Avoid the inhalation of fume/gas/mist/vapor/spray.
First aid measure	In case of inhalation, move the patient to the place with the fresh air and get him/her to take the rest in the posture easy to take a breath. Be sure to contact the doctor when feeling bad. In case of skin contact:be sure to wash with a lot of water and soap. Be sure that the contaminated cloth should be washed before re-use.
Storage	Don't put the product at the place where the direct sunlight strikes, where the temperature will be above 40℃ and at the moisture and humid place prone to cause the rust.
Disposal	Dispose the product in the method regulated by the municipality after use up and degassing at the outside where there is no fire.

3. Composition and ingredient information

Distinction between the single product and the mixed produt:Mixed product

Material name	Content percentage wt%	CAS No	Chemical Examining Regulation Law No.	Industrial Safety and Health Law Notifiable substance	PRTR Law	Poisonous and Deleterious Substances Control Law
(E)−1,3,3,3−Tetrafluoroprop−1−ene	100	29118−24−9	2−4137	Not applicable	Not applicable	Not applicable

4. First aid measure

In case of inhalation	Move the patient to the place with the fresh air immediately. In case that the respiration stops, the artificial respiration should be done. If there is the qualified person, the oxygen inhalation should be done as needed. And have the doctor's treatment immediately.
In case of skin contact	The liquid vaporization can cause the frostbite. So wash the skin with a lot of water immediately, and remove the substance. If the frostbite is found, don't scrub and immerse the affected part into the warm water (not hot water), and have the doctor's treatment immediately. If there is no water, cover it with the clean and soft cloth.
In case of an eye contact	Lifting the eye lid to wash better, wash an eye with a lot of water for more than 15 minutes immediately. If the symptom persists, have the doctor's treatment.
In case of ingestion	Don't make the patient vomit unless otherwise the doctor gives the instruction. Don't give anything to the unconscious patient by the dermal administration. Have the doctor's treatment immediately.
Others	Because there is the possibility that the heartbeat is disturbed, use catecholamine like epinephrine especially carefully, and use only at the case that the emergency medical treatment device is required. In case of the excessive disclosure, focus on the recovery measure of the symptom and the clinical condition.

5. Fire fighting measure

Fire fighting agent	Because this product is non−combustible, use the proper fire extinguishing agent according to the environment of the firing periphery and the situation. Use the water spray, foam−typed, dry−typed or carbon dioxide typed fire extinguishing agent.
Specific fire fighting method	This substance itself is pressurized in the container. There is the risk of the burst because the pressure in the container will rise by the heating. Close up the container exposed to the fire and cool it by the water spray. In case that the product is mixed with the air under the pressurized condition and is exposed to the strong ignition source, there is the possibility that this substance will cause a fire. Don't drain the substance coming from the place where the fire fighting is being done into the gutter and the drain ditch. Because the gas vapor is heavier than air, there is possibility that the oxidation concentration required for the respiration can be lowered and cause the suffocation. The decomposition product generated at the fire has the risk of causing the damage on the human body. The decomposition product has the possibility of including the substance below : Hydrogen fluoride
Protection for the fire fighter	Don't inhale the fume at the fire or the explosion. Wear the self−sufficient respirator and the protective cloth. Cover the surface of the skin with the protective equipment. The decomposition product generated at the fire has the risk of causing the damage on the health. At the fire, cool the container and the storage tank with the water spray.

6. Leakage measure

Cautions to the human body	Evacuate the people from on−the−spot to the safe place immediately. Separate the people from on−the−spot and move them to the windward from the leaking place. Because the gas vapor is heavier than air, there is possibility that the oxidation concentration required for the respiration will be lowered and can cause the suffocation. The required ventilation should be secured. Be sure to touch the leaked gas and liquid on the skin. Remove the ignition source. Be sure that the retention doesn't happen near the floor. Don't enter the leaking place without the protective equipment until the research and the confirmation of the atmospheric air in the leaking place is finished. Wear the anti−static cloth・shoe・leather glove. Wear the respirator and the protective cloth as needed.
Cautions to the environment	Stop the leakage when it is possible to carry out without taking the risk. Try to avoid the leakage in the large area. This gas can be vaporized easily.
Removal method	Don't spray the water to the leaking place directly. Regarding the once leaked liquid, wait the

vaporization.

7. Handling and storage consideration

Handling consideration	Don't warm up the heating appliance and the hot water because it can be the cause of burst. Don't spray toward the fire because of the risk of causing the harmful gas. Ventilate well. Don't leave the product at the place near the heat source and the place where the direct sunlight strikes and inside the car during the summer season. Don't use toward to the people. Don't throw into the fire even after use. Dispose in the method regulated by the municipality after using up the product and degassing at the outside where there is no fire.

8. Exposure preventive measure

Allowable concentration	
ACGIH limit value	Not set up
OSHA allowable exposure limit	Not set up
AIHA limit value	800ppm
Facility measure	Ventilate well in case of using inside.
Protective equipment	
Respiratory organ protective equipment	Use the respirator as needed.
Hand preventive equipment	Use the dry leather glove as needed.
Eye protective equipment	Wear the protective glass as needed.
Skin and body protective equipment	Wear the working cloth and the helmet in accordance with the form of use.

9. Physical and chemical characteristics

(Product) Product pressure (25℃) :0.42±0.05MPa

(Propellant)

Melting point	Not measured	
Boiling point	−19℃	
Flash point	Not applicable	
Combustion range (Explosion range)	Lower limit 7.0% Upper limit 9.5%	The measurement at 30℃. Non−combustible below 28℃.
Vapor pressure (35℃)	0.65MPa	
Specific gravity of gas (Air=1)	1.6	
Solubility (20℃)	0.373g / L	
Octanol/ Water partition coefficient (logPow)	1.6	
Ignition temperature	288～293℃	
Molecular weight	114	

10. Stability and reactivity

Stability	The polymerized reaction which can cause the risk doesn't happen. Stable under the normal condition.
Condition to be avoided	Avoid the ignition source like flash, heating, welded frame and smoke fire. There is the possibility that it can cause the toxic or corrosive decomposition product. Avoid mixing the product with oxygen or air under the pressure which is greater than the atmospheric pressure. Avoid the high temperature, heating and spark. Avoid the direct sunlight.
Material to be avoided	Strong acid, strong base. The fine aluminum powder. Activated metal like sodium, potassium、calcium, magnesium, zinc, barium, lithium etc. and strong oxidizing agent.
Hazard and harmful decomposition product	At the fire, the decomposition product may include the substance below;halogenated carbonyl, hydrogen fluoride and other fluorides.

11. Harmfulness information

Acute toxicity (inhalation)	LC50: >207,000 ppm (four hours, rat) LC50: >100,000 ppm (four hours, mouse)
Skin corrosion・irritation	Not observed (rabbit, OECD Guide Line 404)
Repeatedly dose toxicity	Repeatedly dose for 90 days NOAEL 5,000 ppm (rat) Repeatedly dose for 28 days (6 hours/day, 5 days/week for 4 weeks) (rat) 0, 5,000, 10,000, 15,000ppm exposure NOAEL : 10,000 ppm
Mutagenicity	Ames test:Salmonella typhimurium (TA 1535, TA 1537, TA 98, TA 100) and colon bacillus

WP2urvA: Inert at the 50,000 ppm exposure (in both cases that the metabolism activity is present and is not present).
Chromosomal abnormality of the In-vivo human lymphocyte: inert under the exposure concentration by 76
In-vivo irregular DNA synthetic test (4 weeks): inert at 15,000 ppm (rat).
Bone marrow micronucleus formulation (4 weeks): inert at 15,000 ppm (rat).

12. Environmental influence information

Acute toxicity	NOEC > 117 mg/L (96 hours, carp) LC50 > 160 mg/L (48 hours, daphnia)
Growth inhibition	NOEC > 170mg/L (algae, 72 hours)
Partition coefficient	log POW = 1.6 (n-Octanol/water)
Ozone depletion potential	0 (however, assuming that CFC-11 should be 1.0)
Global warming potential	(The integrated value for 100 years assuming that CO^2 is 1.0): <1 (IPCC the fifth repot 2013)

13. Disposal consideration:

Dispose in the method regulated by the municipality after using up the product and degassing at the outside where there is no fire.

14. Transportation consideration

Land transportation	[Container label]	Display the required items like the classification name in Fire Services Act, product name, quantity and cautions (no fire) etc.
	[How to load]	In case that the transporting container storing the dangerous goods are piled up, the height should be made to below the height regulated by Ministry of Home Affairs. On the exterior of the transporting container, display the name and the quantity etc. of the dangerous goods at the loading.
	[Others]	At the transportation, make sure of no leakage from the container, and load without tumbling, falling and damage, and take the collapse preventive measure surely. And follow the law like Fire Services Act. Be sure that the temperature doesn't become hot (above 40°C). Holding the yellow card is required in transit.
Sea transportation		Transport in accordance (procedure, display, transporting container and load capacity etc.) with Ship Safety Law etc.
Air transportation		Transport in accordance (procedure, display, transporting container and load capacity etc.) with Air Safety Law etc.
UN No		1950
UN classification		Class 2.2

15. Applicable laws

High Pressure Gas Control Law	Exclusion of application
PRTR Law	No substance fallen under PRTR Law
Industrial Safety and Health Law	Not applicable
Foreign Exchange and Foreign Trade Control Law Export Trade Control Ordinance	Attached Table 1, the 16th item
Ship Safety Law	Dangerous goods (high pressure gas)
Air Safety Law	Dangerous goods (high pressure gas)

16. Other information

Reference
SDS for (E)-1,3,3,3-Tetrafluoroprop-1ー ene

※Caution
This SDS should be provided for the business operator as the reference to secure the safe handling of the hazard and harmful chemical products. The business operator should use this SDS under his/her own responsibility understanding that the proper measure in accordance with the actual form of use must be taken. So this SDS itself is not the guarantee of safety.