Safety Data Sheet

according to Regulation (EC) No 1907/2006

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Hi-Tech Air Power GREEN CLEAN Art.Nr.: # G-2050, # G-2051

REACH Registration Number:	01-0000019758-54-XXXX
CAS No:	29118-24-9
EC No:	471-480-0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Pressurized Air Spray

1.3. Details of the supplier of the safety data sheet

Company name:	GREEN CLEAN GmbH.
Street:	Trimmelkamer Str. 16
Place:	A-5120 St.Pantaleon
Telephone:	+43 (0)6277 - 62 304
e-mail:	office@green-clean.at
Internet:	www.green-clean.at

1.4. Emergency telephone number: public emergency number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Gases under pressure: Liquefied gas
Hazard Statements:
Contains gas under pressure; may explode if heated.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Hazard statements

H229	Pressurised container: May burst if heated.

Precautionary statements

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
29118-24-9	trans-1,3,3,3-Tetrafluoroprop-1-ene			> 99 %
	471-480-0		01-0000019758-54-XXXX	
	Liquefied gas; H280			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Move victim out of danger zone. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration.

After contact with skin

In case of frostbite, wash with plenty of water; do not remove clothing. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

In case of troubles or persistent symptoms, seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Headache, Drowsiness, Dizziness, Cardiac arrhythmias, Respiratory complaints.

4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen fluoride, Carbon dioxide (CO2), Carbon monoxide.
Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Vapours are heavier than air and will spread at floor level.
Avoid contact with skin, eyes and clothes. Do not breathe vapour/aerosol.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Product is easily volatile.

6.3. Methods and material for containment and cleaning up

Leave to vapourize.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. Do not use in enclosed rooms.

Advice on protection against fire and explosion

Pressurised container: May burst if heated. Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
Vapours can form explosive mixtures with air. Take precautionary measures against static discharge.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

Advice on storage compatibility

Do not store together with: Oxidising agent

Further information on storage conditions

Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F.

7.3. Specific end use(s)

not applicable

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

Personal protective equipment has to be chosen in accordance with workplace specific conditions, e. g. concentration of the product. Chemical resistance has to be clarified with the supplier of protective equipment.

Protective and hygiene measures

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately.

Eye/face protection

Wear eye/face protection.

Hand protection

Suitable material: FKM (fluoro rubber), cold resistant.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at: insufficient ventilation.
Suitable respiratory protective equipment: Filtering device (full mask or mouthpiece) with filter: AX

Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	colourless
Odour:	odourless

pH-Value:	not applicable

Changes in the physical state

Melting point:	not applicable
Initial boiling point and boiling range:	not applicable
Flash point:	not applicable

Explosive properties

In use may form flammable/explosive vapour-air mixture.

Ignition temperature:	368 °C
Vapour pressure: (at 20 °C)	4192 hPa
Vapour pressure: (at 54,4 °C)	10988 hPa
Density (at 21,1 °C):	1,17 g/cm³
Water solubility:	0,373 g/L
Viscosity / dynamic:	not applicable
Viscosity / kinematic:	not applicable
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

none

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

Alkali metals.

10.6. Hazardous decomposition products

Hazardous decomposition products: Hydrofluorocarbons, Hydrogen fluoride, Carbon dioxide (CO2), Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
29118-24-9	trans-1,3,3,3-Tetrafluoroprop-1-ene				
	inhalative (4 h) vapour	LC50 > 965 mg/l	Rat		

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
29118-24-9	trans-1,3,3,3-Tetrafluoroprop-1-ene					
	Acute crustacea toxicity	EC50 > 160 mg/l	48 h	Daphnia magna		
	Fish toxicity	NOEC > 117 mg/l	4 d	Cyprinus carpio (Common Carp)		
	Algea toxicity	NOEC > 170 mg/l	3 d	Algae		

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
29118-24-9	trans-1,3,3,3-Tetrafluoroprop-1-ene	1,6

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

Ozone depletion potential (ODP): 0;
Global warming potential (GWP) < 1

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160505 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers other than those mentioned in 16 05 04

Waste disposal number of contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.2

Classification code: 5A
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 3
Tunnel restriction code: E

Other applicable information (land transport)

Transport as "limited quantity" according to chapter 3.4 ADR/RID.

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.2

Classification code:	5A
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0

Marine transport (IMDG)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.2
14.4. Packing group:	-
Hazard label:	2.2

Marine pollutant:	-
Special Provisions:	63, 190, 277, 327, 344, 381, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, non-flammable
14.3. Transport hazard class(es):	2.2
14.4. Packing group:	-
Hazard label:	2.2

Special Provisions:	A98 A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

see section 6 - 8

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 100 %

Additional information

VOC (CH): 0 %

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant H and EUH statements (number and full text)

H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.

Further Information

Data sources: Data arise from reference works and literature.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.