



## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

#### 1.1 Product identifier

**Product name** AEROSTART

**Synonym(s)** 5050 - PRODUCT CODE • 5051 - PRODUCT CODE • 5052 - PRODUCT CODE • AEROSTART AEROSOL • CRC AEROSTART

#### 1.2 Uses and uses advised against

**Use(s)** ENGINE STARTER

#### 1.3 Details of the supplier of the product

**Supplier name** CRC INDUSTRIES (AUST) PTY LIMITED

**Address** 9 Gladstone Road, Castle Hill, NSW, 2154, AUSTRALIA

**Telephone** (02) 9849 6700

**Fax** (02) 9680 4914

**Email** [info@crcind.com.au](mailto:info@crcind.com.au)

**Website** [www.crcindustries.com.au](http://www.crcindustries.com.au)

#### 1.4 Emergency telephone number(s)

**Emergency** 13 11 26 (PIC)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**GHS classification(s)** Aerosols: Category 1  
Specific Target Organ Systemic Toxicity (Single Exposure): Category 3

#### 2.2 Label elements

**Signal word** DANGER

**Pictogram(s)**



#### Hazard statement(s)

H222 Extremely flammable aerosol.  
H229 Pressurized container: may burst if heated.  
H336 May cause drowsiness or dizziness.  
AUH066 Repeated exposure may cause skin dryness or cracking

#### Prevention statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.

#### Response statement(s)

P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

**PRODUCT NAME AEROSTART****Storage statement(s)**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C.

**Disposal statement(s)**

P501 Dispose of contents/container in accordance with relevant regulations.

**2.3 Other hazards**

No information provided.

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**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

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**3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
GASOLINE	8006-61-9	232-349-1	>60%
DIETHYL ETHER	60-29-7	200-467-2	10 to 30%
ETHANOL	64-17-5	200-578-6	<10%
CARBON DIOXIDE (PROPELLANT)	124-38-9	204-696-9	<10%

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**4. FIRST AID MEASURES**

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**4.1 Description of first aid measures**

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.

**First aid facilities** No information provided.

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

See Section 11 for more detailed information on health effects and symptoms.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**5.1 Extinguishing media**

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

**5.2 Special hazards arising from the substance or mixture**

Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources, including cigarettes, open flames, spark producing switches/tools, heaters, pilot lights, mobile phones, etc when handling. Aerosol cans may explode above 50°C.

**5.3 Advice for firefighters**

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**5.4 Hazchem code**

2Y  
2 Fine Water Spray.  
Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool (< 50°C), dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure aerosol containers/ cans are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for damaged/ leaking containers. Large storage areas should have appropriate fire protection systems.

### 7.3 Specific end use(s)

No information provided.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Carbon dioxide	SWA (AUS)	5000	9000	30000	54000
Carbon dioxide in coal mines	SWA (AUS)	12500	22500	30000	54000
Ethanol	SWA (AUS)	1000	1880	--	--
Ethyl ether	SWA (AUS)	400	1210	500	1520
GASOLINE (<0.1% W/W BENZENE)	SWA (AUS)	--	900	--	--

### Biological limits

No biological limit values have been entered for this product.

### 8.2 Exposure controls

#### Engineering controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable vapours may accumulate in poorly ventilated or confined areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

**PRODUCT NAME AEROSTART****PPE**

<b>Eye / Face</b>	Wear splash-proof goggles.
<b>Hands</b>	Wear nitrile or neoprene gloves.
<b>Body</b>	Not required under normal conditions of use.
<b>Respiratory</b>	At high vapour levels, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator. Where the boiling point is < 65°C, use an AX filter type.



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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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**9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	CLEAR COLOURLESS LIQUID (AEROSOL DISPENSED)
<b>Odour</b>	ETHER-LIKE ODOUR
<b>Flammability</b>	HIGHLY FLAMMABLE
<b>Flash point</b>	-45°C
<b>Boiling point</b>	35°C
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	NOT RELEVANT
<b>Vapour density</b>	> 1 (Air = 1)
<b>Specific gravity</b>	0.75
<b>Solubility (water)</b>	SLIGHTLY SOLUBLE
<b>Vapour pressure</b>	300 mm Hg @ 20°C
<b>Upper explosion limit</b>	48.0 %
<b>Lower explosion limit</b>	1.9 %
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	< 500°C
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

**9.2 Other information**

<b>% Volatiles</b>	95 %
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**10. STABILITY AND REACTIVITY**

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**10.1 Reactivity**

Carefully review all information provided in sections 10.2 to 10.6.

**10.2 Chemical stability**

Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**

Polymerization is not expected to occur.

**10.4 Conditions to avoid**

Avoid heat, sparks, open flames and other ignition sources.

**10.5 Incompatible materials**

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

**10.6 Hazardous decomposition products**

May evolve carbon oxides and hydrocarbons when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Health hazard summary</b>	May be harmful - irritant. This product may only have the potential to cause adverse health effects if intentionally misused (e.g. deliberately inhaling contents). Use safe work practices to avoid eye or skin contact and vapour generation - inhalation. Over exposure may result in central nervous system (CNS) effects.																																																	
<b>Eye</b>	Irritant. Contact may result in irritation, lacrimation, pain and redness.																																																	
<b>Inhalation</b>	Irritant. Over exposure may result in irritation of the nose and throat, coughing and headache. High level exposure may result in nausea, dizziness and drowsiness.																																																	
<b>Skin</b>	Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis.																																																	
<b>Ingestion</b>	May be harmful. Ingestion may result in nausea, vomiting, abdominal pain and drowsiness with large quantities. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema. Ingestion is considered unlikely due to product form.																																																	
<b>Toxicity data</b>	<p style="margin-left: 20px;">DIETHYL ETHER (60-29-7)</p> <table border="0" style="margin-left: 40px;"> <tr><td>LC50 (inhalation)</td><td>31000 ppm/30 minutes (mouse)</td></tr> <tr><td>LCLo (inhalation)</td><td>76,000 ppm (dog)</td></tr> <tr><td>LD50 (ingestion)</td><td>1215 mg/kg (rat)</td></tr> <tr><td>LD50 (intraperitoneal)</td><td>2420 mg/kg (mouse)</td></tr> <tr><td>LD50 (intravenous)</td><td>996 mg/kg (mouse)</td></tr> <tr><td>LD50 (skin)</td><td>&gt; 20 mL/kg (rabbit)</td></tr> <tr><td>LDLo (ingestion)</td><td>260 mg/kg (man)</td></tr> <tr><td>LDLo (intraperitoneal)</td><td>2000 mg/kg (guinea pig)</td></tr> <tr><td>LDLo (subcutaneous)</td><td>8 mg/kg (mouse)</td></tr> <tr><td>TCLo (inhalation)</td><td>200 ppm (human)</td></tr> </table> <p style="margin-left: 20px;">ETHANOL (64-17-5)</p> <table border="0" style="margin-left: 40px;"> <tr><td>LC50 (inhalation)</td><td>20000 ppm/10 hours (rat)</td></tr> <tr><td>LCLo (inhalation)</td><td>21900 ppm (guinea pig)</td></tr> <tr><td>LD50 (ingestion)</td><td>3450 mg/kg (mouse)</td></tr> <tr><td>LD50 (intraperitoneal)</td><td>3600 ug/kg (rat)</td></tr> <tr><td>LD50 (intravenous)</td><td>1440 mg/kg (rat)</td></tr> <tr><td>LD50 (subcutaneous)</td><td>8285 mg/kg (mouse)</td></tr> <tr><td>LDLo (ingestion)</td><td>1400 mg/kg (human)</td></tr> <tr><td>LDLo (intraperitoneal)</td><td>3000 mg/kg (dog)</td></tr> <tr><td>LDLo (intravenous)</td><td>1600 mg/kg (dog)</td></tr> <tr><td>LDLo (skin)</td><td>20 g/kg (rabbit)</td></tr> <tr><td>LDLo (subcutaneous)</td><td>19440 (infant)</td></tr> <tr><td>TCLo (inhalation)</td><td>20000ppm/7 hours (1-22 days pregnant rat - reproductive)</td></tr> <tr><td>TDL0 (ingestion)</td><td>50 mg/kg (human)</td></tr> </table> <p style="margin-left: 20px;">CARBON DIOXIDE (PROPELLANT) (124-38-9)</p> <table border="0" style="margin-left: 40px;"> <tr><td>LCLo (inhalation)</td><td>9 pph/5M (human)</td></tr> </table>		LC50 (inhalation)	31000 ppm/30 minutes (mouse)	LCLo (inhalation)	76,000 ppm (dog)	LD50 (ingestion)	1215 mg/kg (rat)	LD50 (intraperitoneal)	2420 mg/kg (mouse)	LD50 (intravenous)	996 mg/kg (mouse)	LD50 (skin)	> 20 mL/kg (rabbit)	LDLo (ingestion)	260 mg/kg (man)	LDLo (intraperitoneal)	2000 mg/kg (guinea pig)	LDLo (subcutaneous)	8 mg/kg (mouse)	TCLo (inhalation)	200 ppm (human)	LC50 (inhalation)	20000 ppm/10 hours (rat)	LCLo (inhalation)	21900 ppm (guinea pig)	LD50 (ingestion)	3450 mg/kg (mouse)	LD50 (intraperitoneal)	3600 ug/kg (rat)	LD50 (intravenous)	1440 mg/kg (rat)	LD50 (subcutaneous)	8285 mg/kg (mouse)	LDLo (ingestion)	1400 mg/kg (human)	LDLo (intraperitoneal)	3000 mg/kg (dog)	LDLo (intravenous)	1600 mg/kg (dog)	LDLo (skin)	20 g/kg (rabbit)	LDLo (subcutaneous)	19440 (infant)	TCLo (inhalation)	20000ppm/7 hours (1-22 days pregnant rat - reproductive)	TDL0 (ingestion)	50 mg/kg (human)	LCLo (inhalation)	9 pph/5M (human)
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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No information provided.

### 12.2 Persistence and degradability

No information provided.

### 12.3 Bioaccumulative potential

No information provided.

### 12.4 Mobility in soil

No information provided.

### 12.5 Other adverse effects

No information provided.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**Waste disposal** For small amounts, absorb contents with sand or similar and dispose of to an approved landfill site. Do not puncture or incinerate aerosol cans. Contact the manufacturer/supplier for additional information (if required).

**Legislation** Dispose of in accordance with relevant local legislation.

### 14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1950	1950	1950
14.2 Proper Shipping Name	AEROSOLS	AEROSOLS	AEROSOLS
14.3 Transport hazard class	2.1	2.1	2.1
14.4 Packing Group	None Allocated	None Allocated	None Allocated

**14.5 Environmental hazards** No information provided

#### 14.6 Special precautions for user

**Hazchem code** 2Y  
**GTEPG** 2D1  
**EMS** F-D, S-U

### 15. REGULATORY INFORMATION

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

**Poison schedule** Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Classifications** Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.  
 The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

**Hazard codes** F+ Extremely flammable  
 Xi Irritant  
 Xn Harmful

**Risk phrases** R12 Extremely Flammable.  
 R66 Repeated exposure may cause skin dryness or cracking.  
 R67 Vapours may cause drowsiness and dizziness.

**Safety phrases** S23 Do not breathe gas/fumes/vapour/spray (where applicable).  
 S37/39 Wear suitable gloves and eye/face protection.  
 S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

**Inventory listing(s)** **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
 All components are listed on AICS, or are exempt.

### 16. OTHER INFORMATION

## PRODUCT NAME AEROSTART

### Additional information

AEROSOL CANS may explode at temperatures approaching 50°C.

**RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

### Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

### Revision history

Revision	Description
2.0	GHS classifications provided.
1.0	Initial SDS creation

### Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

**PRODUCT NAME AEROSTART**

**Prepared by**

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**Revision: 2**

**SDS date:** 12 February 2015

**[ End of SDS ]**