

SAFETY DATA SHEET

1. Identification

Product identifier Mass Air Flow Sensor Cleaner

Other means of identification

Product code 05110, 05610

Recommended use Mass air flow sensor cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone

General Information 215-674-4300 **Technical** 800-521-3168

Assistance

Customer Service 800-272-4620 **24-Hour Emergency** 800-424-9300 (US)

(CHEMTREC) 703-527-3887 (International)
Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Gases under pressure Compressed gas

Health hazards Reproductive toxicity (fertility) Category 2

Specific target organ toxicity, repeated Category 2

exposure

Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment,

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if

swallowed and enters airways. Suspected of damaging fertility. May cause damage to organs (eyes, central nervous system, liver, kidney) through prolonged or repeated exposure. Toxic to

Category 2

aquatic life. Toxic to aquatic life with long lasting effects.

Material name: Mass Air Flow Sensor Cleaner 1827 Version #: 01 Issue date: 06-30-2014

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not apply while equipment is energized. Pressurized container: Do not pierce or burn, even after use. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe gas. Do not breathe mist or vapor. Wear protective gloves/protective clothing/eye protection/face

protection. Avoid release to the environment.

Response If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If exposed or

concerned: Get medical attention. Collect spillage.

Storage Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to

temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

92.18% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 91.98% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures			
Chemical name	Common name and synonyms	CAS number	%
Naphtha (petroleum), hydrotreated light		64742-49-0	80 - 90
Carbon dioxide		124-38-9	5 - 10
2,2,4-Trimethylpentane		540-84-1	3 - 5
n-Hexane		110-54-3	3 - 5
Methanol		67-56-1	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

If symptoms develop move victim to fresh air. Get medical attention if symptoms persist. Inhalation

Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists. Eve contact Rinse with water. Get medical attention if irritation develops and persists.

Prolonged exposure may cause chronic effects.

Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, Ingestion

keep head low so that stomach content doesn't get into the lungs. Aspiration may cause

pulmonary edema and pneumonitis.

Most important symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware **General information** of the material(s) involved, and take precautions to protect themselves. Show this safety data

sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires

only.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions
General fire hazards

In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Remove all possible sources of ignition in the surrounding area. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not breathe gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop the flow of material, if this is without risk. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not breathe mist or vapor. Do not breathe gas. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)			
Components	Туре	Value	
2,2,4-Trimethylpentane (CAS 540-84-1)	PEL	2350 mg/m3	
		500 ppm	
Carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m3	

Components	Туре	Value	
		5000 ppm	
Methanol (CAS 67-56-1)	PEL	260 mg/m3	
		200 ppm	
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3	
		500 ppm	
US. ACGIH Threshold Limit Value	es .		
Components	Туре	Value	
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
Methanol (CAS 67-56-1)	STEL	250 ppm	
	TWA	200 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
US. NIOSH: Pocket Guide to Cher	nical Hazards		
Components	Туре	Value	
2,2,4-Trimethylpentane (CAS 540-84-1)	Ceiling	1800 mg/m3	
		385 ppm	
	TWA	350 mg/m3	
		75 ppm	
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	
		30000 ppm	
	TWA	30000 ppm 9000 mg/m3	
	TWA	• •	
Methanol (CAS 67-56-1)	TWA STEL	9000 mg/m3	
Methanol (CAS 67-56-1)		9000 mg/m3 5000 ppm	
Methanol (CAS 67-56-1)		9000 mg/m3 5000 ppm 325 mg/m3	
Methanol (CAS 67-56-1)	STEL	9000 mg/m3 5000 ppm 325 mg/m3 250 ppm	
Methanol (CAS 67-56-1) n-Hexane (CAS 110-54-3)	STEL	9000 mg/m3 5000 ppm 325 mg/m3 250 ppm 260 mg/m3	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedio n, without hydrolysis	Urine	*

^{* -} For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Methanol (CAS 67-56-1)

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Methanol (CAS 67-56-1) Skin designation applies.

US - Tennesse OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin. n-Hexane (CAS 110-54-3) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Polyvinyl chloride (PVC). Viton®.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a

NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to

determine actual employee exposure levels.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.
Form Aerosol.

Color Clear. Colorless.

Odor Not available.

Odor threshold Not available.

PH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling

range

123 °F (50.6 °C) estimated

Flash point < 0 °F (< -17.8 °C) Tag Closed Cup

Evaporation rate Very fast.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

0.9 % estimated

Flammability limit - upper

(%)

36 % estimated

Vapor pressure 3201.5 hPa estimated

Vapor density> 1 (air = 1)Relative density0.7 estimatedSolubility (water)Not available.Partition coefficientNot available.

(n-octanol/water)

Auto-ignition temperature

489.2 °F (254 °C) estimated

Decomposition temperatureNot available.Viscosity (kinematic)Not available.Percent volatile95 % estimated

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Heat, flames and sparks. Contact with incompatible materials.

Incompatible materials

Hazardous decomposition

Strong oxidizing agents. Carbon oxides.

products

Product

11. Toxicological information

Information on likely routes of exposure

Ingestion May be fatal if swallowed and enters airways.

Prolonged inhalation may be harmful. May cause damage to organs through prolonged or Inhalation

repeated exposure by inhalation.

Skin contact Prolonged skin contact may cause temporary irritation. Eye contact Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Species

FIOUUCI	Opecies	rest Nesuits
Mass Air Flow Sensor Cle	aner	
Acute		
Dermal		
LD50	Rabbit	2037.8894 mg/kg estimated
Inhalation		
LC50	Rat	1527.8224 mg/l, 4 Hours estimated
LD50	Rat	68313.3516 mg/m3, 4 hours estimated
Oral		
LD50	Human	6193.4844 mg/kg estimated
	Rat	16418.0957 mg/kg estimated
LDL0	Human	37160.9063 mg/kg estimated

^{*} Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Carcinogenicity

Suspected of damaging fertility. Reproductive toxicity

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

May cause damage to organs (eyes, central nervous system, liver, kidney) through prolonged or

Test Results

repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or

repeated exposure.

12. Ecological information

Ecotoxicity	Toxic to a	Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.			
Product		Species	Test Results		
Mass Air Flow Senso	or Cleaner				
Aquatic					
Fish	LC50	Fish	1329.3086 mg/l, 96 hours estimated		

Material name: Mass Air Flow Sensor Cleaner 1827 Version #: 01 Issue date: 06-30-2014

Test Results Components **Species** Methanol (CAS 67-56-1) **Aquatic** Fish LC50 18000 - 20000 mg/l, 96 hours Rainbow trout.donaldson trout (Oncorhynchus mykiss) Acute Crustacea EC50 Water flea (Daphnia magna) > 10000 mg/l, 48 hours Fish LC50 Rainbow trout, donaldson trout 18000 - 20000 mg/l, 96 hours (Oncorhynchus mykiss)

n-Hexane (CAS 110-54-3)

Aquatic

Fish LC50 Fathead minnow (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours

Not available. Persistence and degradability **Bioaccumulative potential** Not available.

Partition coefficient n-octanol / water (log Kow)

2,2,4-Trimethylpentane 5 18 -0.77 Methanol 3.9 n-Hexane

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products If discarded, this product is considered a RCRA ignitable waste, D001. Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Hazardous waste code

D001: Waste Flammable material with a flash point <140 F

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN1950 **UN** number

UN proper shipping name

Aerosols, flammable, Limited Quantity

Transport hazard class(es) 2.1 Class

Subsidiary risk 2.1 Label(s)

Not applicable. Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions N82 306 Packaging exceptions Packaging non bulk None Packaging bulk None

IATA

UN1950 **UN** number

UN proper shipping name Aerosols, flammable, Limited Quantity

Transport hazard class(es)

2.1 Class Subsidiary risk

Not applicable. Packing group

Environmental hazards No. **ERG Code** 10L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

^{*} Estimates for product may be based on additional component data not shown.

Other information

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only

Allowed.

IMDG

UN number UN1950

UN proper shipping name AEROSOLS, LIMITED QUANTITY, MARINE POLLUTANT

Transport hazard class(es) 2 Class Subsidiary risk

Packing group Not applicable.

Environmental hazards

Yes Marine pollutant F-D, S-U **EmS**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

General information IMDG Regulated Marine Pollutant.

15. Regulatory information

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication US federal regulations

Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Methanol (CAS 67-56-1) n-Hexane (CAS 110-54-3)

CERCLA Hazardous Substance List (40 CFR 302.4)

2,2,4-Trimethylpentane (CAS 540-84-1)

Methanol (CAS 67-56-1) n-Hexane (CAS 110-54-3)

CERCLA Hazardous Substances: Reportable quantity

2,2,4-Trimethylpentane (CAS 540-84-1) 1000 LBS Methanol (CAS 67-56-1) 5000 LBS n-Hexane (CAS 110-54-3) 5000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

2,2,4-Trimethylpentane (CAS 540-84-1)

n-Hexane (CAS 110-54-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

Food and Drug Not regulated.

Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes Section 311/312 Delayed Hazard - Yes **Hazard categories** Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No

SARA 302 Extremely No

hazardous substance

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

2,2,4-Trimethylpentane (CAS 540-84-1)

Carbon dioxide (CAS 124-38-9)

Methanol (CAS 67-56-1)

n-Hexane (CAS 110-54-3)

US. Massachusetts RTK - Substance List

2,2,4-Trimethylpentane (CAS 540-84-1)

Carbon dioxide (CAS 124-38-9)

n-Hexane (CAS 110-54-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Methanol (CAS 67-56-1)

2,2,4-Trimethylpentane (CAS 540-84-1)

Carbon dioxide (CAS 124-38-9)

n-Hexane (CAS 110-54-3)

US. Rhode Island RTK

2,2,4-Trimethylpentane (CAS 540-84-1)

Methanol (CAS 67-56-1)

n-Hexane (CAS 110-54-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1) Listed: March 16, 2012

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR

51.100(s))

Consumer products

Not regulated

95 %

(40 CFR 59, Subpt. C)

State

VOC content (CA)

VOC content (OTC)

VOC content (OTC)

VOC content (OTC)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

	<u> </u>	
Issue date	06-30-2014	
Prepared by	Allison Cho	
Version #	01	

Further information HMIS® ratings

CRC # 599C
Health: 2*
Flammability: 4

Physical hazard: 0 Personal protection: B

NFPA ratings

Health: 2 Flammability: 4 Instability: 0

NFPA ratings



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