

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 08/20/2014 :

Version:

SECTION 4.1			
	dentification of the	substance/mixture and of the company/undertaking	
	t identifier		
Product form		: Mixture	
Trade name		: JOHNSEN'S MASS AIR FLOW SENSOR CLEANER 10 OZ.	
Product code		: 4721	
	at identified uses of the		
Use of the substar		substance or mixture and uses advised against : Mass Air Sensor Cleaner	
	of the supplier of the sa	ifety data sheet	
Technical Chemic P.O. BOX 139	al Company		
Р.О. БОХ 139 Cleburne, Texas 7	76033		
T 817-645-6088	0000		
1.4. Emerge	ency telephone number		
Emergency number		: CHEMTREC 24 Hour 1-800-424-9300, 1-703-527-3887 (International)	
	lazards identificatio		
2.1. Classifi	cation of the substance	or mixture	
Classification (G	HS-US)		
	H222		
Compressed gas			
Muta. 1B Carc. 1B	H340 H350		
Repr. 2	H361		
STOT SE 1	H370		
STOT RE 2	H373		
Full text of H-phra	ses: see section 16		
2.2. Label e	lements		
GHS-US labeling			
Hazard pictogram			
	s (GHS-US)	$\wedge \wedge \wedge$	
	s (GHS-US)		
	s (GHS-US)		
	s (GHS-US)		
	s (GHS-US)	GHS02 GHS04 GHS08	
Signal word (GHS	· · ·	$\begin{array}{c} \vdots \\ & & & \\$	
Signal word (GHS Hazard statement	-US)	: Danger : H222 - Extremely flammable aerosol	
5	-US)	<ul> <li>Danger</li> <li>H222 - Extremely flammable aerosol</li> <li>H280 - Contains gas under pressure; may explode if heated</li> </ul>	
5	-US)	<ul> <li>Danger</li> <li>H222 - Extremely flammable aerosol</li> <li>H280 - Contains gas under pressure; may explode if heated</li> <li>H340 - May cause genetic defects</li> </ul>	
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#### 2.3. Other hazards

Other hazards not contributing to the

ting to the : Contains gas under pressure; may explode if heated.

#### classification 2.4. Unknown acute toxicity (GHS-US)

#### No data available

#### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Naphtha (Petroleum), Hydrotreated Light	(CAS No) 64742-49-0	73.04 - 91.3	Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
Carbon Dioxide, Liquefied, Under Pressure	(CAS No) 124-38-9	1 - 5	Compressed gas, H280
n-Hexane	(CAS No) 110-54-3	0.913 - 4.565	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Methanol	(CAS No) 67-56-1	1 - 5	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist) H331 STOT SE 1, H370

SECTION 4: First and measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medica advice/attention. Call a POISON CENTER or doctor/physician.
First-aid measures after inhalation	: Cough. Remove to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	<ul> <li>Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with wate for several minutes. Direct contact with the eyes is likely to be irritating. Obtain medical attention if pain, blinking or redness persist.</li> </ul>
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and eff	ects, both acute and delayed
Symptoms/injuries	: May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs.
Symptoms/injuries after inhalation	: Shortness of breath. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritation of the respiratory tract. Headache. Dizziness.
Symptoms/injuries after skin contact	: May cause slight irritation . May cause moderate irritation. Itching. Red skin. Skin rash/inflammation.
Symptoms/injuries after eye contact	: May cause slight eye irritation . May cause severe irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.
Symptoms/injuries after ingestion	: May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways.
4.3. Indication of any immediate media	al attention and special treatment needed
No additional information available	
<b>SECTION 5: Firefighting measures</b>	
5.1. Extinguishing media	
Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Special hazards arising from the s	ubstance or mixture
Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burn and injuries.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.

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Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Aerosol level 3.
SECTION 6: Accidental release	
	ve equipment and emergency procedures
General measures	: No naked lights. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges.
6.1.1. For non-emergency personnel	
Protective equipment	: Gloves. Safety glasses.
Emergency procedures	: Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection. Avoid breathing dust,fume,gas,mist,vapor spray.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters.	Notify authorities if liquid enters sewers or public waters.
6.3. Methods and material for conta	ainment and cleaning up
For containment	: Dam up the liquid spill. Contain released substance, pump into suitable containers. Plug the lea cut off the supply.
Methods for cleaning up	: Store away from other materials.
6.4. Reference to other sections	
See Heading 8. Exposure controls and per-	sonal protection.
<b>SECTION 7: Handling and storage</b>	ge
7.1. Precautions for safe handling	
Additional hazards when processed	: Hazardous waste due to potential risk of explosion. Pressurized container: Do not pierce or bur even after use.
Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation vapor. Do not spray on an open flame or other ignition source. Obtain special instructions . Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust,fume,gas,mist,vapor spray. Do not breathe dust,fumes,gas,mist,vapor spray.
Hygiene measures	: Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, in	cluding any incompatibilities
Technical measures	<ul> <li>Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.</li> </ul>
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources.
Storage area	: Store in a well-ventilated place.
7.3. Specific end use(s)	

### SECTION 8: Exposure controls/personal protection

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8.1. Control parameters
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Methanol (67-56-1)		
USA ACGIH	ACGIH TWA (mg/m³)	262 mg/m <sup>3</sup>
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	328 mg/m <sup>3</sup>
USA ACGIH	ACGIH STEL (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm

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Carbon Dioxide, Liquefied, Under Pressure (124-38-9)			
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	9000 mg/m³	
USA ACGIH	ACGIH TWA (ppm)	5000 ppm	
USA ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	54000	
USA ACGIH	ACGIH STEL (ppm)	30000 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m³)	9000 mg/m <sup>3</sup>	
USA OSHA	OSHA PEL (TWA) (ppm)	5000 ppm	

#### 8.2. **Exposure controls** Appropriate engineering controls

9.1.

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: Local exhaust venilation, vent hoods.

- Personal protective equipment
- : Gloves. Safety glasses. Avoid all unnecessary exposure.



Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Other information	: Do not eat, drink or smoke during use.

**SECTION 9: Physical and chemical properties** Information on basic physical and chemical properties Physical state : Gas Appearance : Liquid. Color : Colourless to light yellow. : Solvent-like odour. strong. Sweet. Odor Odor threshold : No data available : No data available Relative evaporation rate (butyl acetate=1) : No data available : No data available Melting point Freezing point : No data available : 58 - 64 °C (Lowest Component) Boiling point Flash point : -17 °C (Lowest Component) Auto-ignition temperature : No data available Decomposition temperature : No data available : No data available Flammability (solid, gas) Vapor pressure No data available Relative vapor density at 20 °C : No data available Relative density : 0.667 : Insoluble in water. Solubility Log Pow No data available : No data available Log Kow Viscosity, kinematic : < 10 cSt : No data available Viscosity, dynamic Explosive properties No data available : No data available Oxidizing properties : No data available Explosive limits **Other information** 

VOC content

9.2.

: 95.1 %

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

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#### 10.2. Chemical stability

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Open flame. Overheating.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

#### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity

: Not classified

Methanol (67-56-1)			
LD50 oral rat	>= 2528 mg/kg body weight application as 50% aqueous solution		
LD50 dermal rabbit	17100 mg/kg corresponding to 20 ml/kg bw according to the authors		
LC50 inhalation rat (mg/l)	128.2 mg/l/4h Air		
Skin corrosion/irritation	Not classified		
Serious eye damage/irritation	: Not classified		
Respiratory or skin sensitization	: Not classified		
Germ cell mutagenicity	: May cause genetic defects.		
Carcinogenicity	: May cause cancer.		
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.		
Specific target organ toxicity (single exposure)	: Causes damage to organs.		
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.		
Aspiration hazard	: Not classified		
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.		
Symptoms/injuries after inhalation	: Shortness of breath. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Irritation of the respiratory tract. Headache. Dizziness.		
Symptoms/injuries after skin contact	: May cause slight irritation . May cause moderate irritation. Itching. Red skin. Skin rash/inflammation.		
Symptoms/injuries after eye contact	: May cause slight eye irritation . May cause severe irritation. Irritation of the eye tissue. Inflammation/damage of the eye tissue. Redness of the eye tissue.		
Symptoms/injuries after ingestion	: May be harmful if swallowed and enters airways. May be fatal if swallowed and enters airways.		

#### SECTION 12: Ecological information 12.1. Toxicity

Methanol (67-56-1)		
LC50 fish 1	15400 mg/l (96 h; Lepomis macrochirus; Lethal)	
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Lethal)	
LC50 fish 2	10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)	
EC50 Daphnia 2	24500 mg/l (48 h; Daphnia magna)	
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)	
Threshold limit algae 1	530 mg/l (192 h; Microcystis aeruginosa)	
Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)	
Carbon Dioxide, Liquefied, Under Pressure (1	24-38-9)	
LC50 fish 1	35 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)	
LC50 fish 2	60 - 240 mg/l (12 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)	
12.2. Persistence and degradability		
JOHNSEN'S MASS AIR FLOW SENSOR CLEANER 10 OZ.		
Persistence and degradability	Not established.	

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n-Hexane (110-54-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.
Naphtha (Petroleum), Hydrotreated Light (	64742-49-0)
Persistence and degradability	Not established.
- ·	
Methanol (67-56-1) Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	$0.6 - 1.12 \text{ g } O_2 \text{ /g substance}$
Chemical oxygen demand (COD)     1.42 g O <sub>2</sub> /g substance	
ThOD	1.5 g $O_2$ /g substance
BOD (% of ThOD)	0.8 % ThOD
Carbon Dioxide, Liquefied, Under Pressure	a (124_38_0)
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
12.3. Bioaccumulative potential	
JOHNSEN'S MASS AIR FLOW SENSOR CL	EANER 10 OZ.
Bioaccumulative potential	Not established.
n-Hexane (110-54-3)	
Bioaccumulative potential	Not established.
·	
Naphtha (Petroleum), Hydrotreated Light (	
Bioaccumulative potential	Not established.
Methanol (67-56-1)	
BCF fish 1	< 10 (Leuciscus idus)
Log Pow	-0.77 (Experimental value; Other)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Carbon Dioxide, Liquefied, Under Pressure	e (124-38-9)
Log Pow	0.83 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
12.4. Mobility in soil	
Methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)
12.5. Other adverse effects	
Other information	: Avoid release to the environment.
SECTION 13: Disposal consideratio	ns
13.1. Waste treatment methods	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Container under
	pressure. Do not drill or burn even after use. Dispose of contents/container to appropriate was disposal facility, in accordance with local, regional, national, international regulations.
Additional information	: Flammable vapors may accumulate in the container.
Ecology - waste materials	: Avoid release to the environment.
SECTION 14: Transport information	
n accordance with ADR / RID / IMDG / IATA / /	
JS DOT (ground): UN1950, Aerosols, 2.	1, Limited Quantity
CAO/IATA (air): UN1950, Aerosols, 2.	1, Limited Quantity
	4. United Operative
	1, Limited Quantity
MO/IMDG (water): UN1950, Aerosols, 2.	this subchapter for classification criteria for flammable aerosols.

Proper	Shipping	Name	(DOT)
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flammable, (each not exceeding 1 L capacity)

: Aerosols

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Department of Transportation (DOT) Hazard Classes	: 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115
Hazard labels (DOT)	: 2.1 - Flammable gas
DOT Special Provisions (49 CFR 172.102) DOT Packaging Exceptions (49 CFR 173.xxx)	<ul> <li>N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.</li> <li>306</li> </ul>
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None
DOT Packaging Bulk (49 CFR 173.xxx)	: None
14.3. Additional information	All second and a family formation and the
Other information	: No supplementary information available.
Overland transport	
No additional information available	
Transport by sea	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 48 - Stow "away from" sources of heat,87 - Stow "separated from" Class 1 (explosives) except Division 14,126 - Segregation same as for Class 9, miscellaneous hazardous materials
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
SECTION 15: Regulatory information	
15.1. US Federal regulations	
JOHNSEN'S MASS AIR FLOW SENSOR CLE	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard
	Fire hazard Sudden release of pressure hazard
	Immediate (acute) health hazard
Methanol (67-56-1)	
Listed on United States SARA Section 313 Listed on the United States TSCA (Toxic Subst	ances Control Act) inventory
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
15.2. International regulations	
CANADA	
CANADA JOHNSEN'S MASS AIR FLOW SENSOR CLE	ANER 10 OZ.

Methanol (67-56-1)		
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects	

#### **EU-Regulations**

No additional information available

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.2; R45 Muta.Cat.2; R46 Repr.Cat.3; R62

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#### F; R11

Xn; R20/21/22 Xn; R68/20/21/22 Full text of R-phrases: see section 16

### 15.2.2. National regulations

No additional information available

#### 15.3. US State regulations

No additional information available

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Carc. 1B	Carcinogenicity Category 1B
Compressed gas	Gases under pressure Compressed gas
Flam. Aerosol 1	Flammable aerosol Category 1
Flam. Liq. 2	Flammable liquids Category 2
Muta. 1B	Germ cell mutagenicity Category 1B
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H222	Extremely flammable aerosol
H225	Highly flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H315	Causes skin irritation
H331	Toxic if inhaled
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H373	May cause damage to organs through prolonged or repeated
	exposure
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	: 3 - Liquids and solids that can be ignited under almost all ambient conditions.
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard
Physical	: 1 Slight Hazard
Personal Protection	: В
SDS US (GHS HazCom 2012) - TCC	

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The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.