

# SAFETY DATA SHEET

Issue Date 20-Aug-2018

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Version 1

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** MASS-46

### Other means of identification

**Product code:**

**Synonyms**

### Recommended use of the chemical and restrictions on use

**Recommended Use** Lubricant.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Michigan Air Solutions  
4511 Clay Avenue SW  
Grand Rapids, Michigan 49548  
Phone: 616-531-8940

### Emergency telephone number

**Emergency Telephone**

## 2. HAZARD IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### **WHMIS 2015 Regulatory Status**

This chemical is not considered hazardous by the Canadian Hazardous Products Regulations (WHMIS 2015).

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Label Elements

#### **EMERGENCY OVERVIEW**

#### **Signal word**

Not Classified

#### **Hazard statements**

None

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance** Oil

**Physical state** Liquid

**Odor** Mild

<p><b>Eyes</b> None  <b>Skin</b> None  <b>Inhalation</b> None  <b>Ingestion</b> None</p> <p><b>Hazards not otherwise classified (HNOC)</b>  <b>Other information</b>          • Harmful to aquatic life with long lasting effects</p>
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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester	68515-49-1	5 - 10%	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**First aid measures**

- Eye contact:** Flush eye with water for 15 minutes. If symptoms persist, call a physician.
- Skin contact:** Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. Consult a physician.
- Ingestion:** Drink 1 or 2 glasses of water. Do not induce vomiting. Consult a physician if necessary.

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

**Symptoms:** No information available.

**Indication of any immediate medical attention and special treatment needed**

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:**

Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire, cool tanks with water spray.

**Explosion data**

- Sensitivity to Mechanical Impact** None.
- Sensitivity to Static Discharge** None.

**Special protective equipment for firefighters:**

In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Contaminated surfaces will be extremely slippery. Wear personal protective equipment.

**Environmental precautions**

**Environmental precautions:** Should not be released into the environment. Avoid subsoil penetration.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Always replace cap after use. Spilling onto the container's outside will make container slippery. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers dry and tightly closed to avoid moisture absorption and contamination

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines** Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m<sup>3</sup>, ACGIH STEL of 10 mg/m<sup>3</sup>.

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection:** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

**Hand protection:** Impervious gloves

**Eye protection:** Safety glasses

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b> Liquid			
<b>Appearance</b> Oil	<b>Odor</b> Mild	<b>Color</b> Clear	<b>Odor threshold</b> No information available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>	<b>pH</b>	Not applicable
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<b>Melting point/freezing point</b>	No information available	<b>Boiling point / boiling range</b>	> 315 °C / 600 °F
<b>Flash point</b>	> 232 °C / 450 °F	Cleveland Open Cup	
<b>Flammability (solid, gas)</b>	No information available	<b>Evaporation rate</b>	No information available
<b>Upper flammability limit:</b>	No information available	<b>Flammability Limit in Air Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available	<b>Vapor density</b>	No information available
<b>Specific Gravity</b>	< 0.9	<b>Water solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available	<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available	<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	approx. 43.2 cSt @ 40 ° C	<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available		
<b>Oxidizing properties</b>	No information available		

**Other information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

**Reactivity**  
Not applicable

**Chemical stability**

<b>Stability</b>	Stable under recommended storage conditions
<b>Possibility of Hazardous Reactions</b>	
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** No special storage conditions required

**Hazardous Decomposition Products**

**Hazardous Decomposition Products** None reasonably foreseeable

**Incompatible materials**

**Incompatible materials** Strong oxidising agents

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

<b>Product Information</b>	Product does not present an acute toxicity hazard based on known or supplied information
<b>Eye contact</b>	May cause slight irritation.
<b>Skin contact</b>	Substance does not generally irritate and is only mildly irritating to the skin.
<b>Inhalation</b>	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester - 68515-49-1	> 60000 mg/kg ( Rat )	= 16000 mg/kg ( Rabbit )	-

**Information on toxicological effects**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No sensitization responses were observed.
<b>Mutagenic effects:</b>	Did not show mutagenic or teratogenic effects in animal experiments.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	This product does not contain any known or suspected reproductive hazards.
<b>STOT - Single Exposure</b>	None under normal use conditions.
<b>STOT - Repeated Exposure</b>	None under normal use conditions.
<b>Aspiration hazard</b>	Not applicable.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	5916 mg/kg
<b>ATEmix (dermal)</b>	5847 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	1413 mg/l
<b>ATEmix (inhalation-vapor)</b>	79279 mg/l

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Harmful to aquatic life with long lasting effects

0.2241% of the mixture consists of components(s) of unknown hazards to the aquatic environment

1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester - 68515-49-1	
<b>Algae/aquatic plants</b>	1.3: 96 h Pseudokirchneriella subcapitata mg/L EC50
<b>Fish</b>	0.55: 96 h Lepomis macrochirus mg/L LC50 static 0.62: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.66: 96 h Pimephales promelas mg/L LC50 static 1: 96 h Oncorhynchus mykiss mg/L LC50 static 1: 96 h Pimephales promelas mg/L LC50 flow-through
<b>Crustacea</b>	0.18: 48 h Daphnia magna mg/L EC50

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

The product is insoluble and floats on water.

Components	Partition coefficient
1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester - 68515-49-1	8.8

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Empty containers should be taken for local recycling, recovery or waste disposal.

**14. TRANSPORT INFORMATION**

**DOT** Not Regulated by any means of transportation

**TDG** Not Regulated

**IATA-DGR** Not Regulated

**IMO / IMDG** Not Regulated

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA:** Listed in TSCA

**DSL:** All of the components in this product are listed in DSL

**EINECS/ELINCS** This product complies with EINECS/ELINCS

**CHINA:** This product complies with China IECSC.

**KECL:** This product complies with Korea KECL.

**PICCS:** This product complies with Philippines PICCS.

**AICS:** All the constituents of this material are listed on the Australian AICS

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**Canada HPR Statement**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**State Regulations (RTK)**

**California Proposition 65**

This product contains chemicals known to the state of California to cause birth defects or other reproductive harm

<b>Components</b>	California Proposition 65 CRT List - Hazard Designation:
1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester	Listed: April 20, 2007 Developmental Toxicity

**U.S. State Right-to-Know Regulations**

Components	NJRTK:	MARTK:	PARTK:
1,2 Benzenedicarboxylic acid di-c9-c11 branched alkyl ester - 68515-49-1	Not Listed	Not Listed	Listed

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

**NFPA:**

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS \* for Carc, Muta, Tera, Specific Organ \*

**HMIS health rating:**

Health: 1

Flammability: 1

Physical hazards 0

Personal protection B

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Revision Note

Reason for revision: Not applicable

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**