

# SAFETY DATA SHEET.

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Version 1

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

### Product identifier

**Product name** FORMULA 201

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

**Product code** F03876

**Product Type** Extremely Flammable Aerosol  
**Synonyms** None

### Supplier's details

**Recommended Use** Circuit Board Cleaner.  
**Uses advised against** No information available

**Manufactured For:**  
ERS DEPOT  
11731 LEVAN RD.  
Livonia, MI 48150  
734-744-4700

**Manufacturer**  
American Jetway Corporation  
34136 Myrtle Street  
Wayne, MI 48184-0126  
Phone:(734) 721-5930

**Emergency telephone number**  
**Chemical Emergency Phone Number**

CHEMTREC: 1-800-262-8200 ID 1195 (UNITED STATES)



**Hazards not otherwise classified (HNOC)**

None

**Other information**

0% of the mixture consists of ingredient(s) of unknown toxicity.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	Weight %*
HEPTANE	142-82-5	80-90
ISOPROPYL ALCOHOL	67-63-0	1-10
CARBON DIOXIDE	124-38-9	1-10

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

**4. FIRST AID MEASURES****First aid measures for different exposure routes**

<b>General advice</b>	Avoid contact with eyes, skin, and clothing. Avoid breathing vapors, mist, or gas.
<b>Eye contact</b>	Immediately flush with plenty of water for at least 15 minutes. After initial flushing, remove any contact lenses and continue flushing. If eye irritation persists, consult a doctor.
<b>Skin contact</b>	Wash off with soap and plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
<b>Ingestion</b>	Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

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

<b>Main Symptoms</b>	Causes skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.
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**Indication of immediate medical attention and special treatment needed, if necessary**

<b>Notes to physician</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**Water fog. Dry chemical. Foam. Carbon dioxide (CO<sub>2</sub>). Cool containers/tanks with water spray.

**Unsuitable Extinguishing Media** Do not use a solid water stream as it may scatter and spread fire. Keep away from sources of ignition - No smoking. Remove all sources of ignition.

**Specific hazards arising from the chemical**

Extremely Flammable / Flammable. Keep product and empty container away from heat and sources of ignition. Risk of ignition. In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray.

**Explosion Data****Sensitivity to Mechanical Impact** none.**Sensitivity to Static Discharge** Yes.**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal precautions** Use with adequate ventilation to keep the exposure levels below the OELS. Follow safe handling advice and personal protective equipment recommendations.

**Environmental precautions**

**Environmental precautions** Vapors can accumulate in low areas. Report spills as required by local and federal regulations. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains.

**Methods for cleaning up** Soak up with inert absorbent material. Contain liquid and collect with an inert, non-combustible material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains. Take precautionary measures against static discharges.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Contents under pressure. Do not puncture or incinerate cans. Handle in accordance with good industrial hygiene and safety practice. Take precautionary measures against static discharges.

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

**Technical measures/Storage conditions** Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces, and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children. Store locked up.

**Incompatible products** Strong acids, alkalis, oxidizing agents.

**Aerosol Level** 3

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m <sup>3</sup> (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m <sup>3</sup>	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1225 mg/m <sup>3</sup>
CARBON DIOXIDE 124-38-9	STEL: 30000 ppm TWA: 5000 ppm	TWA: 5000 ppm TWA: 9000 mg/m <sup>3</sup> (vacated) TWA: 10000 ppm (vacated) TWA: 18000 mg/m <sup>3</sup> (vacated) STEL: 30000 ppm (vacated) STEL: 54000 mg/m <sup>3</sup>	IDLH: 40000 ppm TWA: 5000 ppm TWA: 9000 mg/m <sup>3</sup> STEL: 30000 ppm STEL: 54000 mg/m <sup>3</sup>

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

### Exposure controls

**Engineering Measures** Ventilation systems. Use adequate ventilation to keep the exposure levels below the occupational exposure limits.

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

**Eye/Face Protection** Safety glasses with side-shields.

**Skin and body protection** Chemical resistant apron. Protective gloves.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and chemical properties

<b>Physical state</b>	Aerosol	<b>Odor</b>	Mild
<b>Appearance</b>	Clear	<b>Odor Threshold</b>	
<b>Color</b>	Clear		
<b>Property</b>	<b>Values</b>	<b>Remarks • Methods</b>	
<b>pH</b>	No information available		
<b>Melting/freezing point</b>	No information available		
<b>Boiling point/boiling range</b>			
<b>Flash Point</b>	-9_-7 °C / 16-19 °F	Based on lowest flashpoint of the products constituents.	
<b>Evaporation rate</b>	No information available		
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limits in Air</b>			
upper flammability limit			
lower flammability limit			
<b>Vapor pressure</b>			
<b>Vapor density</b>			
<b>Specific Gravity</b>	0.779		
<b>Water solubility</b>	Negligible		
<b>Partition coefficient: n-octanol/water</b>			
<b>Autoignition temperature</b>	No information available	Not applicable	

**Decomposition temperature**  
**Viscosity** No information available  
**Explosive properties**

**Other information**

**VOC Content(%)** 97.03

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to Avoid**

Extremes of temperature and direct sunlight.

**Incompatible Materials**

Strong acids, alkalis, oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides , Hydrocarbons, Fumes.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Inhalation** May cause respiratory irritation. May cause drowsiness or dizziness.  
**Eye contact** Eye irritation may occur if excessive exposure to product occurs.  
**Skin contact** Causes skin irritation.  
**Ingestion** May be fatal if swallowed and enters airways.

**Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
ISOPROPYL ALCOHOL 67-63-0	= 1870 mg/kg ( Rat )	= 4059 mg/kg ( Rabbit )	= 72600 mg/m <sup>3</sup> ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms** Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause respiratory irritation. May be fatal if swallowed and enters airways.

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

**Skin corrosion/irritation** Causes skin irritation.  
**Eye damage/irritation** Under normal conditions there is no eye irritation . Excessive conditions to product may cause eye irritation.  
**Sensitization** Not a known sensitizer.  
**Germ Cell Mutagenicity** Not a germ cell mutagen.  
**Carcinogenicity** There are no carcinogenic chemicals in this product.  
**Reproductive toxicity** This product does not contain any known or suspected reproductive hazards.

<b>Specific target organ systemic toxicity (single exposure)</b>	May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Specific target organ systemic toxicity (repeated exposure)</b>	No known effect based on information supplied.
<b>Chronic toxicity</b>	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest.
<b>Target Organ Effects</b>	Respiratory System, Central nervous system (CNS).
<b>Neurological effects</b>	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.

**Numerical measures of toxicity - Product Information**

**Unknown Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
ISOPROPYL ALCOHOL 67-63-0	1000 mg/L EC50 Desmodesmus subspicatus 96h 1000 mg/L EC50 Desmodesmus subspicatus 72h	9640 mg/L LC50 Pimephales promelas 96h flow-through 11130 mg/L LC50 Pimephales promelas 96h static 1400000 µg/L LC50 Lepomis macrochirus 96h	-	13299 mg/L EC50 Daphnia magna 48h
CARBON DIOXIDE 124-38-9	-	0.46 mg/L LC50 Oncorhynchus mykiss	-	-

**Persistence and degradability**

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**Bioaccumulation**

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Chemical Name	log Pow
ISOPROPYL ALCOHOL 67-63-0	0.05

**Other adverse effects** No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment**

**Waste Disposal Methods** This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with federal, state, and local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261.) Dispose of in accordance with federal, state, and local regulations.

**Contaminated packaging** Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT Ground** CONSUMER COMMODITY ORM-D  
or  
LIMITED QUANTITY

**IATA** UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD.QTY.

**IMDG** UN1950, AEROSOLS, 2.1, LTD. QTY.

## 15. REGULATORY INFORMATION

### International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
ISOPROPYL ALCOHOL	X	X	X	X	X	X	X	X
CARBON DIOXIDE	X	X	X	X	X	X	X	X

### Legend:

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

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

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

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

**CHINA** - 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

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does contain a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
ISOPROPYL ALCOHOL - 67-63-0	67-63-0	1-10	1.0

#### SARA 311/312 Hazard Categories

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Star Hazard</b>	Yes
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	Yes
<b>Reactive Hazard</b>	No

#### 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.



**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ISOPROPYL ALCOHOL 67-63-0	X	X	X
CARBON DIOXIDE 124-38-9	X	X	X

**EPA Pesticide Registration Number** Not applicable

**Canada**

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

**WHMIS Hazard Class**

A Compressed gases  
B5 Flammable aerosol  
D2B Toxic materials

<b>16. OTHER INFORMATION</b>
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<b><u>NFPA</u></b>	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
<b><u>HMIS</u></b>	Health Hazard 2*	Flammability 4	Physical Hazard 1	Personal protection B

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Tel.734-721-5930

**Issuing date** 11-Nov-2015  
**Revision Date** 29-May-2018  
**Revision Note**

**Disclaimer**

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of Safety Data Sheet**