



OSHA - Meets 29 CFR 1910.1200 Standard

## Material Safety Data Sheet

#MSDS0011

Issue Date: 07/08/2010

(Includes Quart &amp; Gallon Containers)

## Masterchem A/C Flush Solvent-Flammable

(Identity: As used on Label and List)

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1.  
THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)  
IMPORTANT: Read this MSDS before handling & disposing of this product.  
Pass this information on to employees, customers, & users of this product.

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**IDENTITY:** (AS USED ON LABEL AND LIST) **MASTERCHEM A/C FLUSH SOLVENT-FLAMMABLE**  
**MANUFACTURER/SUPPLIER:** Santech Industries, Inc.  
**ADDRESS:** 2450 Handley Ederville Rd. Ft. Worth, TX 76118 USA  
**PHONE NUMBER FOR INFORMATION:** 1-817-589-1212  
**FAX NUMBER:** 1-817-589-5900  
**EMERGENCY PHONE NUMBER:** 1-800-424-9300 (Chemtreec)

Date Prepared: August 7, 2009  
Superseded: July 8, 2010

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

**CONTAINS:** 70-80% HEPTANE (142-82-5)  
20-25% ISOPROPANOL (67-63-0) [200-661-7]  
Number in parentheses is CAS #, number in brackets is European EC #.

## SECTION 3 - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS:	CAS #	TWA (OSHA)	TLV (ACGIH)	HAP
Heptane (70-80%)	142-82-5	500 ppm	300 ppm	No
Isopropyl alcohol (20-25%)	67-63-0	400 ppm	200 ppm A4	No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%. Using manufacturers' data, based on EPA Method 311, the following EPA Hazardous Air Pollutants may be present in trace amounts (less than 0.1%) Benzene.

MATERIAL:	CAS #	CEILING	STEL (OSHA/ACGIH)
Isopropanol	67-63-0	None Known	400 ppm

## RISK STATEMENTS:

**R11** Highly Flammable.  
**R18** In use, may form flammable/explosive vapor-air mixture.  
**R65** Harmful: may cause lung damage if swallowed.  
**R36/37/38** Irritating to eyes, respiratory system and skin.

## SAFETY STATEMENTS:

**S7** Keep container tightly closed.  
**S9** Keep container in a well-ventilated place.  
**S16** Keep away from sources of ignition.  
No smoking.

## HMIS HAZARD RATINGS:

HEALTH: 1 0 = INSIGNIFICANT 3 = HIGH  
FLAMMABILITY: 3 1 = SLIGHT 4 = EXTREME  
REACTIVITY: 0 2 = MODERATE

## TRANSPORTATION INFORMATION:

PROPER SHIPPING NAME: Compounds, Cleaning Liquid (heptane, Isopropyl)  
HAZARD CLASS/PKG GRP: 3 / II REF: 49 CFR 173,150,.203 .242  
IDENTIFICATION NUMBER: UN 1993 LABEL: FLAMMABLE LIQUID

## SECTION 4 - FIRST AID MEASURES

**EYE CONTACT:** For eyes, flush with plenty of water for 15 minutes & get medical attention.  
**SKIN CONTACT:** In case of contact with skin immediately remove contaminated clothing.  
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.  
**INHALATION:** After high vapor exposure, remove to fresh air.  
If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration.  
**SWALLOWING:** If swallowed, get immediate medical advice. Inducing vomiting may cause aspiration into the lungs.

Rev A 07/08/2010

## Masterchem A/C Flush Solvent-Flammable

*(Includes Quart & Gallon Containers)**(Identity: As used on Label and List)*

### SECTION 5 - FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** NFPA Class B extinguishers (Carbon Dioxide or foam) for Class I B liquid fires.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.  
Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots).  
Use NIOSH approved positive-pressure self-contained breathing apparatus.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

**EXTREMELY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE!**

Keep container tightly closed.  
Isolate from oxidizers, heat, sparks, electric equipment & open flame.  
Closed containers may explode if exposed to extreme heat.

Empty container very hazardous!  
Applying to hot surfaces requires special precautions.  
Continue all label precautions!

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**CONTAINMENT TECHNIQUES:** Keep unprotected personnel away. Stop spill at source. Dike area & contain.

**CLEAN-UP PROCEDURES:** Clean up remainder with absorbent materials. Mop up & dispose of.  
Persons without proper protection should be kept from area until cleaned up.

**OTHER PRECAUTIONS:** Vapors may ignite explosively & spread long distances. Prevent vapor buildup.  
Put out pilot lights & turn off heaters, electric equipment & other ignition sources during use & until all vapors are gone.

### SECTION 7 - HANDLING AND STORAGE

**HANDLING:**

**PRECAUTIONS TO BE TAKEN IN HANDLING:**

Isolate from oxidizers, heat, sparks, electric equipment & open flame.  
Use only with adequate ventilation.  
Avoid breathing of vapor or spray mist.  
Avoid contact with skin & eyes.  
Wear OSHA Standard goggles or face shield.  
Consult Safety Equipment Supplier.  
Wear gloves, apron & footwear impervious to this material.  
Wash clothing before reuse.  
Avoid free fall of liquid.  
Ground containers when transferring.  
Do not flame cut, saw, drill, braze, or weld.  
Empty container very hazardous!  
Continue all label precautions!

**STORAGE:**

**PRECAUTIONS TO BE TAKEN IN STORAGE:**

Vapors may ignite explosively & spread long distances.  
Prevent vapor buildup.  
Put out pilot lights & turn off heaters, electric equipment & other ignition sources during use & until all vapors are gone.  
Do not store above 49° C/120° F.  
Store large amounts in structures made for OSHA Class I B liquids.  
Keep container tightly closed & upright when not in use to prevent leakage.

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### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**RESPIRATORY CONTROLS:** A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

**VENTILATION:**

**LOCAL EXHAUST:** Necessary.

**MECHANICAL (GENERAL):** Acceptable.

**SPECIAL:** None.

**OTHER:** None.

**PERSONAL PROTECTIONS:**

Wear OSHA Standard goggles or face shield.

Consult Safety Equipment Supplier.

Wear gloves, apron & footwear impervious to this material.

Wash clothing before reuse.

**WORK & HYGIENIC PRACTICES:**

Provide readily accessible eye wash stations & safety showers.

Wash at end of each work shift & before eating, smoking or using the toilet.

Promptly remove clothing that becomes contaminated.

Destroy contaminated leather articles.

Launder or discard contaminated clothing.

### SECTION 9 - PHYSICAL / CHEMICAL PROPERTIES

**APPEARANCE:**

Liquid, Water-White

**ODOR:**

Alcohol

**BOILING RANGE:**

81 99 122° C / 178 211 252 °F

**AUTO IGNITION TEMPERATURE:**

290° C / 555° F (Lowest Component)

**LOWER FLAMMABLE LIMIT IN AIR (% by vol):**

1.4

**FLASH POINT (TEST METHOD):**

-7° C / 18° F (TCC)

**FLAMMABILITY CLASSIFICATION:**

Class I B

**GRAVITY @ 68/68° F / 20/20° C:**

57.7

**API:**

0.748

**SPECIFIC GRAVITY (Water=1):**

6.229

**POUNDS/GALLON:**

100.0 Vol. % / 747.7 g/L / 6.228 Lbs./Gal.

**VOC'S (>0.44 Lbs/Sq In):**

100.0 Vol. % / 747.7 g/L / 6.228 Lbs./Gal.

**TOTAL VOC'S (TVOC):**

100.0 Vol. % / 747.7 g/L / 6.228 Lbs./Gal.

**NONEXEMPT VOC'S (CVOC):**

0.0 Wt. % / 0.0 g/L / 0.000 Lbs./Gal.

**HAZARDOUS AIR POLLUTANTS (HAPS):**

**VAPOR PRESSURE (mm of Hg @20° C)**

33.7

**NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20° C)**

33.7

**VAPOR DENSITY (air=1):**

3.0

**WATER ABSORPTION:**

Appreciable.

**REFRACTIVE INDEX:**

1.405

### SECTION 10 - STABILITY AND REACTIVITY

**STABILITY:**

UNSTABLE:

**STABLE:**

Stable under normal conditions.

**CONDITIONS TO AVOID:**

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

**MATERIALS TO AVOID:**

Isolate from strong oxidizers such as permanganates, chromates & peroxides.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Carbon Monoxide, Carbon Dioxide from burning.

**HAZARDOUS POLYMERIZATION:**

WILL NOT OCCUR

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### SECTION 11 - TOXICOLOGICAL INFORMATION

HAZARDOUS COMPONENTS:	CAS #	TWA (OSHA)	TLV (ACGIH)	HAP
Heptane (70-80%)	142-82-5	500 ppm	300 ppm	No
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MATERIAL:	CAS #	CEILING	STEL (OSHA/ACGIH)
Isopropanol	67-63-0	None Known	400 ppm

#### ACUTE HAZARDS:

##### EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis. Primary irritation to eyes, redness, tearing, blurred vision. Liquid can cause eye irritation. Wash thoroughly after handling.

##### INHALATION:

Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful. Breathing vapor can cause irritation. Acute overexposure can cause damage to kidneys, blood, nerves, liver & lungs.

##### SWALLOWING:

Harmful or fatal if swallowed. Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

#### SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED:

##### CONDITIONS AGGRAVATED:

Chronic overexposure can cause damage to kidneys, blood, nerves, liver & lungs. Persons with severe skin, liver or kidney problems should avoid use.

#### CHRONIC HAZARDS:

##### CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

Leukemia has been reported in humans from Benzene. This product contains less than 72 ppm of Benzene.

Not considered hazardous in such low concentrations. Absorption thru skin may be harmful.

### SECTION 12 - ECOLOGICAL INFORMATION

#### MAMMALIAN INFORMATION:

MATERIAL:	CAS #	LOWEST KNOWN LETHAL DOSE DATA		
Isopropanol:	67-63-0	5840.0 mg/kg	(Rats)	LOWEST KNOWN LD50 (ORAL)
Isopropanol:	67-63-0	16000 ppm	(Rats)	LOWEST KNOWN LC50 (VAPORS)
Isopropanol:	67-63-0	16400.0 mg/kg	(Rabbits)	LOWEST KNOWN LD50 (SKIN)

#### AQUATIC ANIMAL INFORMATION:

The most sensitive known aquatic group to any component of this product is: Chub 1000 ppm or mg/L (24 hour exposure). Keep out of sewers and natural water supplies.

##### MOBILITY:

This material is a mobile liquid.

##### DEGRADABILITY:

This product is partially biodegradable.

##### ACCUMULATION:

This product does not accumulate or biomagnify in the environment.

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**SECTION 13 - DISPOSAL CONSIDERATIONS**

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**WASTE DISPOSAL METHOD:**

Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws.  
If questions exist, contact the appropriate agencies.

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**SECTION 14 - TRANSPORT INFORMATION**

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<b>DOT SHIPPING NAME:</b>	UN1993, Flammable Liquids, n.o.s. (Heptane, Isopropanol), 3, PG-II
<b>DRUM LABEL:</b>	(FLAMMABLE LIQUID)
<b>IATA / ICAO:</b>	UN1993, Flammable Liquids, n.o.s. (Heptane, Isopropanol), 3, PG-II
<b>IMO / IMDG:</b>	UN1993, Flammable Liquids, n.o.s. (Heptane, Isopropanol), 3, PG-II
<b>EMERGENCY RESPONSE GUIDEBOOK NUMBER:</b>	128

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**SECTION 15 - REGULATORY INFORMATION**

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**EPA REGULATION:**

SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

**STATE REGULATIONS:**

THIS PRODUCT MEETS REQUIREMENTS OF SOUTHERN CALIFORNIA AQMD RULE 443.1 & SIMILAR REGULATIONS

**INTERNATIONAL REGULATIONS:**

The components of this product are listed on the chemical inventories of the following countries:  
Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom.

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**SECTION 16 - OTHER INFORMATION**

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**HAZARD RATINGS:**

HEALTH (NFPA): 1, HEALTH (HMIS): 2, FLAMMABILITY: 3, REACTIVITY: 0

This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

**EMPLOYEE TRAINING:**

Employees should be made aware of all hazards of this material (as stated in this MSDS) before handling it.

**NOTICE:**

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications.

All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources.

While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product.

Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Unless updated, this Material Safety Data Sheet is valid until 09/05/2012.