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# SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD) IMPORTANT: Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

# SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

DRADUCT TRENTTY		
PRODUCT IDENTITY:	GLOBAL PARTS A.C. FLUSH	
COMPANY IDENTITY:	Santech Industries, LLC	
COMPANY ADDRESS:	1904 Mykawa Road	
COMPANY CITY:	Pearland, TX 77581	
COMPANY PHONE:	1-281-485-1458	
EMERGENCY PHONES:	CHEMTREC: 1-800-424-9300	(USA)
	CANUTEC: 1-613-996-6666	(CANADA)

## SECTION 2. HAZARDS IDENTIFICATION

## DANGER!!

## HAZARD STATEMENTS:

- H100s = General, H200s = Physical, H300s = Health, H400s = Environmental
  - Highly flammable liquid and vapor. H225
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - Causes eye irritation. H320
  - May cause respiratory irritation. H335
  - May cause drowsiness or dizziness. H336
  - Very toxic to aquatic life with long lasting effects. H410

PRECAUTIONARY STATEMENTS:

Р	PRECAUTIONARY STATEMENTS:		
Ρ	100s = General	l, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal	
	P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking.	
	P243	Take precautionary measures against static discharge.	
	P260	Do not breathe dust/fume/gas/mist/vapors/spray.	
	P262	Do not get in eyes, on skin, or on clothing.	
	P280	Wear protective gloves/protective clothing/eye protection/face protection.	
	P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact	
		lenses if present & easy to do - Continue rinsing.	
	P403	Store in a well-ventilated place.	
	P404	Store in a closed container.	

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	WT %
Heptane	142-82-5	205-563-8	70-80
Isopropanol	67-63-0	200-661-7	20-25

Trace components: Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, reproductive toxins, respiratory tract mutagens, and sensitizers). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents, and Canadian Hazardous Materials Identification System Standard (CPR 4).

# SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

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### SECTION 4. FIRST AID MEASURES

GENERAL ADVICE:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

EYE CONTACT:

If this product enters the eyes, open eyes while under gently running water. Use sufficient force to open eyelids. "Roll" eyes to expose more surface. <u>Minimum</u> flushing is for 15 minutes. Seek immediate medical attention.

## SKIN CONTACT:

If the product contaminates the skin, immediately begin decontamination with running water. <u>Minimum</u> flushing is for 15 minutes. Remove contaminated clothing, taking care not to contaminate eyes. If skin becomes irritated and irritation persists, medical attention may be necessary. Wash contaminated clothing before reuse, discard contaminated shoes.

## INHALATION:

After high vapor exposure, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR). Seek immediate medical attention. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

### SWALLOWING:

If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, give two glasses of water to drink. DO NOT INDUCE VOMITING. Never induce vomiting or give liquids to someone who is unconscious, having convulsions, or unable to swallow. Seek immediate medical attention.

### NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (such as: Gastric lavage after endotracheal intubation).

### SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

NO open flames, NO sparks, & NO smoking. Above flash point, use a closed system, ventilation, explosion-proof electrical equipment, lighting. Do NOT use compressed air for filling, discharging, or handling.

EXTINGUISHING MEDIA Use dry powder, AFFF, alcohol-resistant foam, water in large amounts, carbon dioxide.

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.

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# SECTION 5. FIRE FIGHTING MEASURES (CONTINUED)

## UNUSUAL EXPLOSION AND FIRE PROCEDURES

EXTREMELY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE Isolate from oxidizers, heat, sparks, electric equipment & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty container very hazardous! Continue all label precautions!

## SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE AND ENVIRONMENTAL PRECAUTIONS:

Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel.

### PERSONAL PROTECTIVE EQUIPMENT

The proper personal protective equipment for incidental releases (such as: 1 Liter of the product released in a well-ventilated area), use impermeable gloves (triple-gloves (rubber gloves and nitrile gloves, over latex gloves), goggles, face shield, and appropriate body protection. In the event of a large release, use impermeable gloves, specific for the material handled, chemically resistant suit and boots, and hard hat. Self-Contained Breathing Apparatus or respirator may be required where engineering controls are not adequate or conditions for potential exposure exist. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

### ENVIRONMENTAL PRECAUTIONS:

Stop spill at source. Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material. Close or cap valves and/or block or plug hole in leaking container and transfer to another container. Keep from entering storm sewers and ditches which lead to waterways, and if necessary, call the local fire or police department for immediate emergency assistance.

### CONTAINMENT AND CLEAN-UP MEASURES:

Absorb spilled liquid with polypads or other suitable absorbent materials. If necessary, neutralize using suitable buffering material, (acid with soda ash or base with phosphoric acid), and test area with litmus paper to confirm neutralization. Clean up with non-combustible absorbent (such as: sand, soil, and so on). Shovel up and place all spill residue in suitable containers. dispose of at an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal (see Section 13 - Disposal Considerations).

## SECTION 7. HANDLING AND STORAGE

### 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 goggles, face shield, gloves, apron & footwear impervious to 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

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. Keep in fireproof surroundings. Keep separated from strong oxidants. Keep cool. Do not store above 49 C/120 F.

Keep container tightly closed & upright when not in use to prevent leakage.

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## SECTION 7. HANDLING AND STORAGE (CONTINUED)

NONBULK: CONTAINERS:

Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Empty containers should be handled with care. Never store food, feed, or drinking water in containers which held this product.

### BULK CONTAINERS:

All tanks and pipelines which contain this material must be labeled. Perform routine maintenance on tanks or pipelines which contain this product. Report all leaks immediately to the proper personnel.

## TANK CAR SHIPMENTS:

Tank cars carrying this product should be loaded and unloaded in strict accordance with tank-car manufacturer's recommendation and all established on-site safety procedures. Appropriate personal protective equipment must be used (see Section 8, Engineering Controls and Personal Protective Equipment.). All loading and unloading equipment must be inspected, prior to each use. Loading and unloading operations must be attended, at all times. Tank cars must be level, brakes must be set or wheels must be locked or blocked prior to loading or unloading. Tank car (for loading) or storage tanks (for unloading) must be verified to be correct for receiving this product and be properly prepared, prior to starting the transfer operations. Hoses must be verified to be in the correct positions, before starting transfer operations. A sample (if required) must be taken and verified (if required) prior to starting transfer operations. All lines must be blown-down and purged before disconnecting them from the tank car or vessel.

# PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Collect all rinsates and dispose of according to applicable Federal, State, Provincial, or local procedures.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>MATERIAL</b>	<b>CAS#</b>	<b>EINECS#</b>	<b>TWA (OSHA)</b>	T <b>LV (ACGIH)</b>
Heptane	142-82-5	205-563-8	500 ppm	400 ppm
Isopropanol	67-63-0	200-661-7	400 ppm	200 ppm A4
<b>MATERIAL</b> Heptane Isopropanol	142-82-5 20			ppm No

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%. EPA Hazardous Air Pollutants may be present in trace amounts (less than 0.1%): Benzene

## RESPIRATORY EXPOSURE CONTROLS

Seek professional advice prior to respirator selection and use. Maintain airborne contaminant concentrations below exposure limits given above. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, European Standard EN 149, or applicable State regulations. If adequate ventilation is not available or there is potential for airborne exposure above the exposure limits, a respirator may be worn up to the respirator exposure limitations, check with respirator equipment manufacturer's recommendations/limitations. For a higher level of protection, use positive pressure supplied air respiraton protection or Self-Contained Breathing Apparatus or if oxygen levels are below 19.5% or are unknown.

# EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATIONS OR IDLH CONDITIONS Positive pressure, full-face piece Self-Contained Breathing Apparatus; or positive pressure, full-face piece Self-Contained Breathing Apparatus with an auxilliary positive pressure Self-Contained Breathing Apparatus.

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COMPANY IDENTITY: Santech Industries, LLC PRODUCT IDENTITY: GLOBAL PARTS A.C. FLUSH SDS NUMBER: MACF02

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

VENTILATION

LOCAL EXHAUST:NecessaryMECHANICAL (GENERAL):NecessarySPECIAL:NoneOTHER:NonePlease refer to ACGIH document, "Industrial Ventilation, A Manual ofRecommended Practices", most recent edition, for details.

EYE PROTECTION:

Splash goggles or safety glasses. Face-shields are recommended when the operation can generate splashes, sprays or mists.

## HAND PROTECTION:

Wear appropriate impervious gloves for routine industrial use. Use impervious gloves for spill response, as stated in Section 6 of this SDS (Accidental Release Measures). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

### BODY PROTECTION:

Use body protection appropriate for task. Cover-all, rubber aprons, or chemical protective clothing made from impervious materials are generally acceptable, depending on the task.

## WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers. Wash at end of each shift & before eating, smoking or using the toilet. 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
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Applicable
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	81 99 122 C / 178 211 252 F
	-6 C / 20 F (TCC)
EVAPORATION RATE (n-BUTYL ACETATE=1):	2.7
FLAMMABILITY CLASSIFICATION:	Class I B
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	1.4
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	48.7
VAPOR DENSITY (air=1):	3.0
GRAVITY @ 68/68 F / 20/20 C:	
SPECIFIC GRAVITY (Water=1):	0.748
POUNDS/GALLON:	6.231
WATER SOLUBILITY:	Appreciable
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	293 C / 560 F
DECOMPOSITION TEMPERATURE:	Not Available
VOCs (>0.044 Lbs/Sq In) :	96.1 Vol% / 719.0 g/L / 5.9 Lbs/Gal
TOTAL VOC'S (TVOC)*:	100.0 Vol% / 719.0 g/L / 5.9 Lbs/Gal
NONEXEMPT VOC'S (CVOC)*:	100.0 Vol% / 719.0 g/L / 5.9 Lbs/Gal
HAZARDOUS AIR POLLUTANTS (HAPS):	0.0 Wt% /0.0 g/L / 0.000 Lbs/Gal
NONEXEMPT VOC PARTIAL PRESSURE (mm of Hg @ 20 C)	
* Using California Air Resources Board (CARB) Rul	.e 310.

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## SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable under normal conditions.

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

MATERIALS TO AVOID Reacts violently with strong oxidants, causing fire & explosion hazard. Attacks many plastics, rubber, coatings.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon Monoxide, Carbon Dioxide from burning.

HAZARDOUS POLYMERIZATION Will not occur.

## SECTION 11. TOXICOLOGICAL INFORMATION

# 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 harm to kidneys, blood, nerves, liver, lungs.

SWALLOWING:

Harmful or fatal if swallowed. Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea. The symptoms of chemical pneumonitis may not show up for a few days.

# SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED

Chronic overexposure can cause harm 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 been reported in humans from Benzene. This product contains less than 75 ppm of Benzene. Not considered hazardous in such low concentrations. Absorption thru skin may be harmful.

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue. SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer. MUTAGENICITY: This product is not reported to produce mutagenic effects in humans. EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans. TERATOGENICITY: This product is not reported to produce teratogenic effects in humans. REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A <u>mutagen</u> is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An <u>embryotoxin</u> is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A <u>teratogen</u> is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A <u>reproductive toxin</u> is any substance which interferes in any way with the reproductive process.

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## SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

### MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS#	EINECS#	LOWEST KNOWN LETHAL DOSE DATA
Isopropanol	67-63-0	200-661-7	LOWEST KNOWN LD50 (ORAL) 5840.0 mg/kg(Rats)
Heptane	142-82-5	205-563-8	LOWEST KNOWN LC50 (VAPORS) 1600 ppm (Mice)
Isopropanol	67-63-0	200-661-7	LOWEST KNOWN LD50 (SKIN) 16400.0 mg/kg (Rabbits)

## SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFFECT OF MATERIAL ON PLANTS AND ANIMALS: This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE: 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. The substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur in aquatic animals.

MOBILITY IN SOIL This material is a mobile liquid.

DEGRADABILITY This product is partially biodegradable.

ACCUMULATION This product does not accumulate or biomagnify in the environment.

# SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

# SECTION 14. TRANSPORT INFORMATION

DOT/TDG SHIP NAME:	UN1993, Flammable Liquids, n.o.s.
	(Contains: Heptane, Isopropanol), 3, PG-II
DRUM LABEL:	(FLAMMABLE LIQUID)
IATA / ICAO:	UN1993, Flammable Liquids, n.o.s.
	(Contains: Heptane, Isopropanol), 3, PG-II
IMO / IMDG:	ÚN1993, Flammable Liquids, n.o.s.
	(Contains: Heptane, Isopropanol), 3, PG-II
EMERGENCY RESPONSE	GUIDEBOOK NUMBER: 128



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### SECTION 15. REGULATORY INFORMATION

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

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries: Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS)G Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIOC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) B2: Flammable Liquid. D2B: Irritating to skin / eyes.

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

## SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 2, FLAMMABILITY: 3, PHYSICAL HAZARD: 0 (Personal Protection Rating to be supplied by user based on use conditions.) This information is intended solely for the use of individuals trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) 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 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, the Safety Data Sheet is valid until 04/26/2016.