

# SAFETY DATA SHEET



Revision Date 29-Jul-2015  
Version 2.01

## 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Product name Hat Stiffener  
Product code M30647

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use No information available  
Restrictions on use No information available

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

Supplier Mantrose-Haeuser Company  
1175 Post Road East  
Westport, CT 06880

E-mail Address productsupport@mantrose.com

### 1.4 Emergency telephone number

Emergency telephone number Chemtrec: +1 703-527-3887 ex-USA  
Chemtrec: 1-800-424-9300 USA

## 2. Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1 - (H370)
Flammable liquids	Category 2

### 2.2 Label elements

This product is not classified.

**Signal Word**  
Danger

**Hazard Statements**  
Suspected of causing cancer  
Causes damage to organs  
Highly flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/Bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting/equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge

**Precautionary Statements - Response**

IF exposed: Call a POISON CENTER or doctor  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**2.3. Other Hazards Hazards not otherwise classified (HNOC)**

Not Applicable

**2.4 Other information**

Not Applicable

**Unknown Acute Toxicity**

5.3% of the mixture consists of ingredient(s) of unknown toxicity

### 3. Composition/Information on Ingredients

**Substance****Mixture**

Chemical Name	CAS-No	Weight %
Ethanol	64-17-5	80 - 90
Shellac	9000-59-3	5 - 10
METHANOL	67-56-1	1 - 5
Methyl isobutyl ketone	108-10-1	< 1

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

### 4. First aid measures

**4.1 Description of first-aid measures****General advice**

Show this safety data sheet to the doctor in attendance. When symptoms persist or in all cases of doubt seek medical advice.

<b>Eye contact</b>	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician if irritation develops or persists.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Use a mild soap if available. Call a physician if irritation develops or persists.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	If victim is conscious and able to swallow, have victim drink water or milk to dilute. Never give anything by mouth if victim is unconscious or having convulsions. Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center.

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

**Symptoms** See Section 2.2, Label Elements and/or Section 11, Toxicological effects.

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

**Notes to physician** Treat symptomatically.

## **5. Fire-Fighting Measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use dry chemical, "alcohol foam", or Carbon Dioxide. Water may be ineffective, but water should be used to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop leak. Water spray may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

**Unsuitable Extinguishing Media** None.

### **5.2 Special hazards arising from the substance or mixture**

#### **Special Hazard**

Hazardous decomposition products formed under fire conditions Flash back possible over considerable distance

**Hazardous Combustion Products** No information available.

#### **Explosion Data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### **5.3 Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **6. Accidental Release Measures**

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

Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological information.

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

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

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### 7.1 Precautions for safe handling

**Advice on safe handling** All ignition sources should be eliminated. Smoking should be prohibited in storage areas. Electrical installations should be in accordance with Article 501 of the National Electrical Code. The NFPA 30 Flammable and Combustible Liquids Code should be followed for all storage and handling. Frequent careful leakage inspection should be done. Automatic sprinkler system should be provided. Isolate from oxidizers, chemicals capable of spontaneous heating, materials reacting with air or moisture to liberate heat ignition sources and explosive. Consult local fire codes for additional storage information.

**Hygiene measures** When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use.

### 7.2 Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store in original container. Store between 41 and 77 °F (5 - 25° C) in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep locked up or in an area accessible only to qualified or authorized persons. Protect container against physical damage. Detached or outside storage is preferred. Inside storage should be in an NFPA--approved flammable liquids storage room or cabinet. Keep closure up to prevent leakage and remove closure carefully as internal pressure may be present. Avoid breathing vapor. Use with adequate ventilation.

**Materials to Avoid** Strong oxidizing agents.

## 8. Exposure controls/personal protection

### 8.1 Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	British Columbia	Alberta	Quebec	Ontario TWAEV
Ethanol 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	STEL: 1000 ppm
Shellac 9000-59-3	-	-				TWA: 10 mg/m <sup>3</sup>
METHANOL 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	TWA: 200 ppm STEL: 250 ppm Skin	TWA: 200 ppm TWA: 262 mg/m <sup>3</sup> STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> Skin	TWA: 200 ppm TWA: 262 mg/m <sup>3</sup> STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> Skin	TWA: 200 ppm STEL: 250 ppm Skin
Methyl isobutyl ketone 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m <sup>3</sup>	TWA: 20 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 205 mg/m <sup>3</sup> STEL: 75 ppm STEL: 307 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 205 mg/m <sup>3</sup> STEL: 75 ppm STEL: 307 mg/m <sup>3</sup>	TWA: 20 ppm STEL: 75 ppm

### 8.2 Appropriate engineering controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

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

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

**Skin and body protection** Wear chemical resistant gloves and protective clothing which are impervious this product as deemed necessary.

**Respiratory protection** Where exposure is likely to exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirator should be selected based on the form and

concentration of contaminant in air and in accordance with OSHA (29 CFR 1910.134).

**Hygiene measures**

See section 7 for more information

## 9. Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Colored liquid
<b>Color</b>	Pale yellow
<b>Odor</b>	Pleasant
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
<b>pH</b>		No information available
<b>Melting/freezing point</b>	-114 °C / -173 °F	
<b>Boiling point/boiling range</b>	78 °C / 172 °F	
<b>Flash Point</b>	16 °C / 61 °F	Tag closed cup
<b>Evaporation rate</b>	(Butyl Acetate=1): >1	
<b>Flammability (solid, gas)</b>		No information available
<b>Flammability Limits in Air</b>		
upper flammability limit		No information available
lower flammability limit		No information available
<b>Vapor pressure</b>	44.6mm @ 68°F	
<b>Vapor density</b>	1.59	(Air = 1.0) for Pure Ethyl Alcohol
<b>Specific Gravity</b>	0.823 @ 60°F	
<b>Water solubility</b>		No information available
<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>Viscosity, kinematic</b>		No information available
<b>Viscosity, dynamic</b>		No information available
<b>Explosive properties</b>		No information available
<b>Oxidizing Properties</b>		No information available

**9.2 Other information**

**Volatile organic compounds (VOC) content** Max VOC = 684 GPL

## 10. Stability and Reactivity

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions

**10.3 Possibility of hazardous reactions**

None under normal processing.

**10.4 Conditions to Avoid**

Contact with Acetyl Chloride and a wide range of oxidizers.

**10.5 Incompatible Materials**

Strong oxidizing agents.

**10.6 Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

**11. Toxicological information****11.1 Acute toxicity****Numerical measures of toxicity: Product Information**

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

**Unknown Acute Toxicity** 5.3% of the mixture consists of ingredient(s) of unknown toxicity

**Oral LD50** 2,907.00 mg/kg  
**LC50 (Dust/Mist)** 14.56 mg/l  
**LC50 (Vapor)** 134.20 mg/l

**Numerical measures of toxicity: Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol 64-17-5	-	-	= 124.7 mg/L ( Rat ) 4 h
METHANOL 67-56-1	6200 mg/kg ( Rat )	-	= 22500 ppm ( Rat ) 8 h
Methyl isobutyl ketone 108-10-1	2080 mg/kg ( Rat )	= 3000 mg/kg ( Rabbit )	= 8.2 mg/L ( Rat ) 4 h

**11.2 Information on toxicological effects****Skin corrosion/irritation**Product Information

- May cause irritation and defatting of skin on prolonged contact.

Component Information

- No information available

**Eye damage/irritation**Product Information

- Liquid or vapor may cause irritation.

Component Information

- No information available

**Respiratory or skin sensitization**Product Information

- Exposure to over 1000ppm may cause headache, drowsiness, and lassitude; loss of appetite, inability to concentrate and irritation to throat.

Component Information

- No information available

**Germ cell mutagenicity**Product Information

- No information available

Component Information

- No information available

**Carcinogenicity**Product Information

- The table below indicates whether each agency has listed any ingredient as a carcinogen

Component Information

- Contains a known or suspected carcinogen

Chemical Name	ACGIH	IARC	NTP	OSHA

Methyl isobutyl ketone 108-10-1	-	Group 2B	-	
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**Reproductive toxicity**Product Information

- No information available

Component Information

- No information available

**STOT - single exposure**

No information available

**STOT - repeated exposure**

- May cause adverse liver effects
- Contains a known or suspected reproductive toxin

**Other adverse effects**Target Organs

- Blood
- Central nervous system
- Eyes
- Liver
- Reproductive system
- Respiratory system
- Skin
- Gastrointestinal tract (GI)

Product Information

• **INGESTION:** Can cause depression of central nervous system, vomiting, nausea and diarrhea. Individual responses to methyl alcohol vary. Ingestion of less than 30ml (0.34 g/kg) has been fatal to humans. In general, a few ounces may cause blindness and death. As little as 4ml may be toxic if ingested.

Component Information

- No information available

**Aspiration hazard**Product Information

- No information available

Component Information

- No information available

## 12. Ecological information

**12.1 Toxicity****Ecotoxicity**

No information available

5.3 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Ecotoxicity effects**

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Ethanol 64-17-5	-	LC50: 96 h Oncorhynchus mykiss 12.0 - 16.0 mL/L static LC50: 96 h Pimephales promelas 100 mg/L static LC50: 96 h Pimephales promelas 13400 - 15100 mg/L flow-through	LC50: 48 h Daphnia magna 9268 - 14221 mg/L EC50: 48 h Daphnia magna 2 mg/L Static
METHANOL 67-56-1	-	LC50: 96 h Pimephales promelas 28200 mg/L flow-through LC50: 96 h Pimephales promelas 100 mg/L static LC50: 96 h Oncorhynchus mykiss 19500 - 20700 mg/L	-

		flow-through LC50: 96 h Oncorhynchus mykiss 18 - 20 mL/L static LC50: 96 h Lepomis macrochirus 13500 - 17600 mg/L flow-through	
Methyl isobutyl ketone 108-10-1	EC50: 96 h Pseudokirchneriella subcapitata 400 mg/L	LC50: 96 h Pimephales promelas 496 - 514 mg/L flow-through	EC50: 48 h Daphnia magna 170 mg/L

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

Discharge into the environment must be avoided

Chemical Name	log Pow
Ethanol 64-17-5	-0.32
METHANOL 67-56-1	-0.77
Methyl isobutyl ketone 108-10-1	1.19

**12.4 Mobility in soil**

No information available.

**12.5 Other adverse effects**

Discharge into the environment must be avoided

## 13. Disposal Considerations

**13.1 Waste treatment methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

## 14. Transport Information

**DOT**

UN/ID No UN 1263  
 Proper shipping name Paint  
 Hazard class Class 3, Flammable liquid  
 Packing Group III

**MEX**

Proper shipping name Paint  
 Hazard class Class 3, Flammable liquid  
 UN/ID No UN 1263  
 Packing Group III

**IMDG**

Proper shipping name PAINT  
 Hazard class Class 3, Flammable liquid  
 UN Number UN 1263  
 Packing Group III

**IATA**

UN Number UN 1263  
 Proper shipping name PAINT



<b>Hazard class</b>	Class 3, Flammable liquid
<b>Packing Group</b>	III Up to 60 liters. Can go pasenger aircraft or cargo. More than 60 liters up to 220 liters must go via cargo aircraft only.

## 15. Regulatory information

### 15.1 International Inventories

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies
<b>NZIoC</b>	-

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

**DSL** - Canadian Domestic Substances List

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

**PICCS** - Philippines Inventory of Chemicals and 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

**NZIoC** - New Zealand Inventory of Chemicals

### 15.2 U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains 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	SARA 313 - Threshold Values %
METHANOL 67-56-1	1.0

### 15.3 Pesticide Information

Not applicable

### 15.4 U.S. State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
METHANOL - 67-56-1	Developmental
Methyl isobutyl ketone - 108-10-1	Carcinogen Developmental

## 16. Other information

<b>NFPA</b>	<b>Health Hazard</b> 2	<b>Flammability</b> 4	<b>Instability</b> 0	<b>Physical and chemical hazards</b> -
<b>HMIS</b>	<b>Health Hazard</b> 2	<b>Flammability</b> 4	<b>Physical Hazard</b> 0	<b>Personal protection</b> X

#### Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)

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*Ceiling (C)*  
*DOT (Department of Transportation)*  
*EPA (Environmental Protection Agency)*  
*IARC (International Agency for Research on Cancer)*  
*International Air Transport Association (IATA)*  
*International Maritime Dangerous Goods (IMDG)*  
*NIOSH (National Institute for Occupational Safety and Health)*  
*NTP (National Toxicology Program)*  
*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*  
*PEL (Permissible Exposure Limit)*  
*Reportable Quantity (RQ)*  
*Skin designation (S\*)*  
*STEL (Short Term Exposure Limit)*  
*TLV® (Threshold Limit Value)*  
*TWA (time-weighted average)*

**Revision Date** 29-Jul-2015

**Revision Note**  
No information available

**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**