

## SAFETY DATA SHEET

### 1. Identification

<b>Product identifier</b>	<b>HumiSeal 1B51</b>	
<b>Other means of identification</b>		
<b>Product code</b>	HumiSeal 1B51	
<b>Recommended use</b>	Protective Coating for Printed Circuit Board	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	CHASE CORPORATION Zeta Drive Plant	
<b>Address</b>	201 Zeta Drive Pittsburgh, Pennsylvania 15238 United States	
<b>Telephone</b>	1-866-932-0800	
<b>E-mail</b>	Not available.	
<b>Emergency phone number</b>	1-800-424-9300 (+1)703-527-3887	Chemtrec, US Chemtrec, outside of US

### 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		
<b>Hazard symbol</b>	None.	
<b>Signal word</b>	None.	
<b>Hazard statement</b>	Not available.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Not available.	
<b>Response</b>	Not available.	
<b>Storage</b>	Not available.	
<b>Disposal</b>	Not available.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	

Supplemental information None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
TOLUENE		108-88-3	70 - < 80

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

Inhalation	Not available.
Skin contact	Not available.
Eye contact	Not available.
Ingestion	Not available.
Most important symptoms/effects, acute and delayed	Not available.

#### 5. Fire-fighting measures

Suitable extinguishing media	Not available.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Not available.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Not available.
Methods and materials for containment and cleaning up	Not available.
Environmental precautions	Not available.

#### 7. Handling and storage

Precautions for safe handling	Not available.
Conditions for safe storage, including any incompatibilities	Not available.

#### 8. Exposure controls/personal protection

##### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

##### US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
TOLUENE (CAS 108-88-3)	Ceiling	300 ppm
	TWA	200 ppm

##### US. ACGIH Threshold Limit Values

Components	Type	Value
TOLUENE (CAS 108-88-3)	TWA	20 ppm

##### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
TOLUENE (CAS 108-88-3)	STEL	560 mg/m3
		150 ppm
	TWA	375 mg/m3

100 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
TOLUENE (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

TOLUENE (CAS 108-88-3) Skin designation applies.

**Appropriate engineering controls** Not available.

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

**Eye/face protection** Not available.

**Skin protection**

**Hand protection** Not available.

**Other** Not available.

**Respiratory protection** Not available.

**Thermal hazards** Not available.

**9. Physical and chemical properties**

**Appearance**

**Physical state** Liquid.

**Form** Not available.

**Color** Clear

**Odor** Aromatic

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** -138.82 °F (-94.9 °C) estimated

**Initial boiling point and boiling range** 231.08 °F (110.6 °C) estimated

**Flash point** 44.6 °F (7.0 °C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 1.2 %

**Flammability limit - upper (%)** 7.1

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 37.86 hPa estimated

**Vapor density** Not available.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Negligible

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	896 °F (480 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	155 - 215 cP
<b>Viscosity temperature</b>	77 °F (25 °C)
<b>Other information</b>	
<b>Brookfield viscosity</b>	155 - 215 cP
<b>Density</b>	0.89 g/cm3
<b>Flammability class</b>	Flammable IB estimated
<b>Miscible (water)</b>	Negligible
<b>Percent volatile</b>	78.18 % estimated
<b>pH in aqueous solution</b>	Does not apply.
<b>Specific gravity</b>	0.89
<b>VOC</b>	78.18 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Not available.
<b>Possibility of hazardous reactions</b>	Not available.
<b>Conditions to avoid</b>	Not available.
<b>Incompatible materials</b>	Not available.
<b>Hazardous decomposition products</b>	Not available.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.
<b>Ingestion</b>	Not available.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
HumiSeal 1B51		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	15510 mg/kg estimated 18.04 ml/kg estimated
<b>Inhalation</b>		
LC50	Mouse	6805 ppm, 8 Hours estimated 511.6 ppm, 24 Hours estimated
	Rat	34150 ppm, 1 Hours estimated 15610 ppm, 2 Hours estimated 10230 ppm, 4 Hours estimated
<b>Oral</b>		
LD50	Rat	3.326 g/kg estimated

Product	Species	Test Results
<b>Other</b>		
LD50	Mouse	75.47 mg/kg estimated
	Rat	1704 mg/kg estimated
<b>Components</b>	<b>Species</b>	<b>Test Results</b>

TOLUENE (CAS 108-88-3)

**Acute**

**Dermal**

LD50 Rabbit 12120 mg/kg

**Oral**

LD50 Rat 2.6 g/kg

**Skin corrosion/irritation** Not available.

**Serious eye damage/eye irritation** Not available.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

**Skin sensitization** Not available.

**Germ cell mutagenicity** Not available.

**Carcinogenicity**

**IARC Monographs. Overall Evaluation of Carcinogenicity**

TOLUENE (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** Not available.

**Specific target organ toxicity - single exposure** Not available.

**Specific target organ toxicity - repeated exposure** Not available.

**Aspiration hazard** Not available.

**12. Ecological information**

**Ecotoxicity**

Product	Species	Test Results
HumiSeal 1B51		
<b>Aquatic</b>		
Crustacea	EC50 Daphnia	13.0756 mg/l, 48 hours estimated
Fish	LC50 Fish	112.879 mg/l, 96 hours estimated
<b>Components</b>	<b>Species</b>	<b>Test Results</b>

TOLUENE (CAS 108-88-3)

**Aquatic**

Crustacea EC50 Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours

Fish LC50 Coho salmon, silver salmon (Oncorhynchus kisutch) 8.11 mg/l, 96 hours

**Persistence and degradability** Not available.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**

TOLUENE 2.73

**Mobility in soil** Not available.

**Other adverse effects** Not available.

### 13. Disposal considerations

Disposal instructions	Not available.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

### 14. Transport information

#### DOT

UN number	UN1263
UN proper shipping name	PAINT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Not available.
Special provisions	B1, B52, IB3, T4, TP1, TP29
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

#### IATA

UN number	UN1263
UN proper shipping name	PAINT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Not available.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

#### IMDG

UN number	UN1263
UN proper shipping name	PAINT
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

#### DOT





## 15. Regulatory information

### US federal regulations

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

TOLUENE (CAS 108-88-3) Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

#### SARA 311/312 Hazardous chemical

Yes

#### Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)  
 Acute toxicity (any route of exposure)  
 Skin corrosion or irritation  
 Reproductive toxicity  
 Specific target organ toxicity (single or repeated exposure)  
 Aspiration hazard  
 Hazard not otherwise classified (HNOC)

#### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
TOLUENE	108-88-3	70 - < 80

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

TOLUENE (CAS 108-88-3)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

#### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

TOLUENE (CAS 108-88-3) 6594

#### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

TOLUENE (CAS 108-88-3) 35 %WV

#### DEA Exempt Chemical Mixtures Code Number

TOLUENE (CAS 108-88-3) 594

### US state regulations

#### California Proposition 65



**WARNING:** This product can expose you to TOLUENE, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California Proposition 65 - CRT: Listed date/Developmental toxin

TOLUENE (CAS 108-88-3) Listed: January 1, 1991

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

TOLUENE (CAS 108-88-3)

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-14-2015
<b>Revision date</b>	08-10-2018
<b>Version #</b>	03
<b>HMIS® ratings</b>	Health: 3* Flammability: 3 Physical hazard: 0
<b>NFPA ratings</b>	Health: 2 Flammability: 3 Instability: 0
<b>Disclaimer</b>	Not available.
<b>Revision information</b>	This document has undergone significant changes and should be reviewed in its entirety.