SAFETY DATA SHEET

DIMETHYL SILICONE FLUID 0.65 CS

Version:	Revision Date:	MSDS Number:	Date Completed:
1.3	08/2015	GHS – 30004-5-DSF 0.65cs	10/2015

SECTION 1. IDENTIFICATION

Product Name: Dimethyl Silicone Fluid 0.65cs (centistokes)

Manufacturer or supplier's details

Company name of supplier: JIT Silicones Plus

Address: 5 Industrial Park Drive
Oakdale, PA 15071

Telephone: 855-548-7587

Emergency Telephone: 24 Hour Emergency Telephone:
CHEMTREC: (800) 424-9300

Recommended use of the chemical and restrictions on use

Recommended use: Intermediate
Cosmetics
Solvent
Laboratory chemicals

GHS Classification:

Flammable liquids: Category 2

GHS Label element:

Hazard pictograms

Signal Word:

Danger

Hazard Statements:

H225 Highly flammable liquid and vapor.

Precautionary Statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical ventilating/ lighting / equipment.
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge.
P261 Avoid breathing spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other Hazards:

Vapors may form explosive mixture with air.
Static-accumulating flammable liquid.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Substance

Substance name: Hexamethyldisiloxane

CAS-No.: 107-46-0

Chemical nature: Silicone

Hazardous Ingredients:

Chemical Name:	CAS-No.:	Concentration (% w/w)
Hexamethyldisiloxane	107-46-0	>= 90 - <= 100

SECTION 4. FIRST AID MEASURES

If inhaled: If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact: Wash with water and soap as a precaution.
Get medical attention if symptoms occur.

In case of eye contact: Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed: If swallowed, DO NOT induce vomiting.
Get medical attention if symptoms occur.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: None known.

Protection of first-aiders: No special precautions are necessary for first aid responders.

Notes to Physician: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: High volume water jet

Specific hazards during fire fighting:	Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.
Hazardous combustion products:	Carbon oxides Silicon oxides Formaldehyde
Specific extinguishing methods:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures :	Remove all sources of ignition. Ventilate the area. Follow safe handling advice and personal protective equipment recommendations.
Environmental precautions:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up:	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate

containment to keep materials from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures:

Ensure all equipment is electrically grounded before beginning transfer operations.
This material can accumulate static charge due to its inherent physical properties and can therefore cause an electrical ignition source to vapors. In order to prevent a fire hazard, as bonding and grounding may be insufficient to remove static electricity, it is necessary to provide an inert gas purge before beginning transfer operations.
Restrict flow velocity in order to reduce the accumulation of static electricity.

Local/Total ventilation:

Use with local exhaust ventilation.
Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling:

Avoid inhalation of vapor or mist.
Handle in accordance with good industrial hygiene and safety practice.
Non-sparking tools should be used.
Keep container tightly closed.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:

Keep in properly labeled containers.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Keep away from heat and sources of ignition.

Materials to avoid:

Do not store with the following product types:
Strong oxidizing agents
Organic peroxides
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substance and mixtures which in contact with water emit flammable gases
Explosives
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Ingredients	CAS-No.	Value Type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hexamethyldisiloxane	107-46-0	TWA	200 ppm	DCC OEL

Engineering measures:

Processing may form hazardous compounds (see Section 10).
Minimize workplace exposure concentrations.
Use only in an area equipped with explosion proof exhaust ventilation.
Use with local exhaust ventilation.

Personal protective equipment:

Respiratory protection:

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1019.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand Protection Material:

Antistatic gloves.

Material:

Flame retardant gloves.

Remarks:	Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Wash hands before breaks and at the end of workday.
Eye Protection:	Wear the following personal protective equipment: Safety glasses.
Skin and Body Protection:	Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment: Flame retardant antistatic protective clothing. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.).
Hygiene Measures:	Ensure that eye flushing systems and safety showers are located close to the working place. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones / organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the customer service group.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Color:	Colorless
Odor:	Characteristic
Odor Threshold:	No data available
pH Value:	No data available
Melting Point/freezing Point::	No data available
Initial boiling point and boiling range:	100° C

Flash point:	>3.3°C COC (Base oil) Method: Pensky-Martens closed cup
Evaporation rate:	No data available
Flammability (solid, gas):	Not applicable
Upper Explosion limit:	14.65 %(V)
Lower Explosion limit:	1.5 %(V)
Vapor pressure:	42 hPa
Relative vapor density:	No data available
Relative density:	0.76
Solubility(ies):	
Water solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition Temperature:	352° C
Decomposition temperature:	No data available
Viscosity **Viscosity, kinematic**	0.65 mm2/s
Explosive properties:	Not explosive
Oxidizing properties:	The substance or mixture is not classified as oxidizing.
Molecular weight:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Not classified as a reactivity hazard.
Chemical Stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents. When heated to temperatures above 150° C (300° F) in the

	presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. See OSHA formaldehyde standard, 29CFR 1910.1048. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid:	Handling operations that can promote accumulation of static charges. Heat, flames and sparks.
Incompatible materials:	Oxidizing agents.
Hazardous decomposition products: **Thermal decomposition:**	Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity:
Not classified based on available information.

Product:

Acute Oral Toxicity:	LD50 (Rat): >16 ml/kg **Assessment:** The substance or mixture has no acute oral toxicity. **Remarks:** Based on test data.
Acute Inhalation Toxicity:	LC50 (Rat): 15956 ppm **Exposure time:** 4 h **Test atmosphere:** vapor **Assessment:** The substance or mixture has no acute inhalation toxicity. **Remarks:** Based on test data.
Acute Dermal Toxicity:	LD50 (Rat): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity.
Remarks: Based on test data.

Ingredients:
Hexamethyldisiloxane:

Acute Oral Toxicity:
LD50 (Rat): >16 ml/kg
Assessment: The substance or mixture has no acute oral toxicity.
Remarks: Based on test data.

Acute Inhalation Toxicity:
LC50 (Rat): 15956 ppm
Exposure time: 4 h
Test atmosphere: vapor
Assessment: The substance or mixture has no acute inhalation toxicity.
Remarks: Based on test data.

Acute Dermal Toxicity:
LD50 (Rat) >2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity.
Remarks: Based on test data.

Skin corrosion/irritation
Not classified based on available information.

Product:
Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Ingredients:
Hexamethyldisiloxane:
Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Serious eye demage/eye irritation
Not classified based on available information.

Product:
Species: Rabbit
Result: No eye irritation
Remarks: Based on test data

Ingredients:
Hexamethyldisiloxane:
Species: Rabbit
Result: No eye irritation
Remarks: Based on test data

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Product:
Assessment: Does not cause skin sensitization.

Test Type: Human repeat insult patch test (HRIPT)
Species: Humans
Remarks: Based on test data

Ingredients:
Hexamethyldisiloxane:
Species: Rabbit
Assessment: Does not cause skin sensitization.

Test Type: Human repeat insult patch test (HRIPT)
Species: Humans
Remarks: Based on test data.

Germ cell mutagenicity
Not classified based on available information.

Product:

Genotoxicity in vitro:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative Remarks: Based on test data. Test Type: Chromosome aberration test in vitro Result: negative

	Remarks: Based on test data. Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Results: negative Remarks: Based on test data. Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Result: negative Remarks: Based on test data.
Genotoxicity in vivo:	Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis). Species: Rat Application Route: Intraperitoneal injection Result: negative Remarks: Based on test data.
Germ cell mutagenicity – Assessment:	Animal testing did not show any mutagenic effects.
Ingredients: **Hexamethyldisiloxane:**	
Genotoxicity in vitro:	Test Type: Bacterial reverse mutation assay (AMES) Result: negative Remarks: Based on test data. Test Type: Chromosome aberration test in vitro Result: negative Remarks: Based on test data. Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative Remarks: Based on test data. Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Result: negative Remarks: Based on test data.
Genotoxicity in vivo:	Test Type: Mutagenicity (in vivo mammalian bone-

marrow cytogenetic test, chromosome analysis).
Species: Rat
Application Route: Intraperitoneal injection
Result: negative
Remarks: Based on test data.

Germ cell mutagenicity – Assessment:

Carcinogenicity:
Not classified based on available information.

Product:
Species: Rat
Application Route: Inhalation (vapor)
Result: negative
Remarks: Based on test data.

Carcinogenicity – Assessment: Animal testing did not show any carcinogenic effects.

Ingredients:
Hexamethyldisiloxane:
Species: Rat
Application Route: Inhalation (vapor)
Result: negative
Remarks: Based on test data

Carcinogenicity – Assessment: Animal testing did not show any carcinogenic effects.

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

OSHA: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or

anticipated carcinogen by NTP.

Reproductive toxicity:
Not classified based on available information.

Product:

Effects on fertility:
Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: Inhalation (vapor)
Symptoms: No effects on fertility.
Remarks: Based on test data.

Effects on fetal development:
Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: Inhalation (vapor)
Symptoms: No effects on fetal development
Remarks: Based on test data.

Reproductive toxicity – Assessment:
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Ingredients:

Hexamethyldisiloxane:

Effects on fertility:
Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: Inhalation (vapor)
Smptoms: No effects on fertility
Remarks: Based on test data

Effects on fetal development:
Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: Inhalation (vapor)
Symptoms: No effects on fetal development
Remarks: Based on test data

Reproductive toxicity – Assessment:
No evidence of adverse effects on sexual function and fertility or on development, based on animal experiments.

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Product:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Routes of exposure: Inhalation (vapor)
Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Routes of exposure – Skin contact
Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Ingredients:
Hexamethyldisiloxane:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Routes of exposure: Inhalation (vapor)
Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Routes of exposure: Skin contact
Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Repeated dose toxicity

Product:
Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Species: Rat
Application Route: Inhalation (vapor)

Remarks: Based on test data

Species: Rat
Application Route: Skin contact
Remarks: Based on test data

Ingredients
Hexamethyldisiloxane:
Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Species: Rat
Application Route: Inhalation (vapor)
Remarks: Based on test data

Species: Rat
Application Route: Skin contact
Remarks: Based on test data

Aspiration toxicity
Not classified based on available information

Further Information

Ingredients:
Hexamethyldisiloxane:
Remarks: This material contains hexamethyldisiloxane (HMDS). Repeated inhalation exposure in rats to HMDS resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Ingredients:
Hexamethyldisiloxane:

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.48 mg/l

Toxicity to algae	EC50 (Selenastrum capricornutum (green algae)): > 0.55 mg/l Exposure time: 96h Remarks: No toxicity at the limit of solubility Based on test data
M-Factor (Acute aquatic toxicity)	1
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC (Daphnia sp.): 0.08 mg/l Exposure time: 21 d Remarks: Based on test data
Ecotoxicology Assessment Chronic aquatic toxicity	Toxic to aquatic life with long lasting effects.

Persistence and degradability

Ingredients:

Hexamethyldisiloxane:

Biodegradability	Result: Not readily biodegradable Biodegradation: 20% Exposure time: 28 d Method: OECD Test Guideline 301C
Stability in water	Degradation half life: 116 h pH: 7 Method: OECD Test Guideline 111 Remarks: Based on test data

Bioaccumulative potential:

Ingredients:

Hexamethyldisiloxane:

Bioaccumulation	Species: Cyprinus carpio (Carp) Bioconcentraction factor 9BCF): 2,410 Concentration: 0.04 mg/l Remarks: Based on test data
Partition coefficient n-octanol/water:	Log Pow: 5.06 (20° C) Remarks: Based on test data

Mobility in soil:
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL PROCEDURES

Disposal methods

Resource Conservation and Recovery Act (RCRA):	When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste.
Waste Code:	D001: Ignitability
Waste from residues:	Dispose of in accordance with local regulations.
Contaminated packaging:	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on the empty drum, if not otherwise specified. Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number:	UN 1993
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)
Class:	3
Packing group:	II
Labels:	3

IATA-DGR

UN/ID No.	UN 1993
Proper shipping name:	Flammable liquid, n.o.s. (Hexamethyldisiloxane)
Class:	3
Packing group:	II
Labels:	Flammable Liquids
Packing instruction (cargo aircraft)	364
Packing instruction (passenger aircraft)	353

IMDG-Code

UN number:	UN 1993
Proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Hexamethyldisiloxane)
Class:	3
Packing group:	II
Labels:	3
EmS Code:	F-E, S-E
Marine pollutant:	Yes

Transport in bulk according to Annex II or MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number:	UN 1993
Proper shipping name:	FLAMMABLE LIQUIDS, N.O.S. (Hexamethyldisiloxane)
Class:	3
Packing group:	II
Labels:	FLAMMABLE LIQUID
ERG Code:	128
Marine pollutant:	Yes (Hexamethyldisiloxane

SECTION 15. REGULATORY INFORMATION

EPCRA – Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard

SARA 302 No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III. Section 313.

US State Regulations

Pennsylvania Right To Know

Hexamethyldisiloxane	107-46-0	90 – 100 %

New Jersey Right To Know

Hexamethyldisiloxane	107-46-0	90 – 100 %

California Prop. 65 This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

KECI: All ingredients listed, exempt or notified.

REACH: All ingredients (pre-)registered or exempt.

TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

AICS: All ingredients listed or exempt.

IECSC:	All ingredients listed or exempt.
PICCS:	All ingredients listed or exempt.
DSL:	All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).
ENCS/ISHL	All components are listed on ENCS/ISHL or exempted from inventory listing.
NZioC	All ingredients listed or exempt.
TCSI:	All ingredients listed or exempt.

SECTION 16. OTHER INFORMATION

Further Information

NFPA:

HMIS III:

HEALTH	0
FLAMMABILITY	3
PHYSICAL HAZARD	0

Full text of other abbreviations

DCC OEL / TWA: Time weighted average

(Q)SAR – (Quantitative) Structure Activity Relationship: ASTM – American Society for the Testing of Materials: bw – Body weight, DIN – Standard of the German Institute for Standardisation, ECx – Concentration associated with x% response: ELx – Loading rate associated with x% response; EmS – Emergency Schedule; ErCx – Concentration associated with x% growth rate response; GHS – Globally Harmonized System; IARC – International Agency for Research on Cancer; IATA – International Air Transport Association; IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 – Half maximal inhibitory concentration; ICAO – International Civil Aviation Organization; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; ISO – International Organization for Standardization; LC50 – Lethal Concentration to 50 % of a test population; LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL – International Convention for the Prevention of Pollution from Ships; n.o.s. – Not Otherwise Specified; NO(A)EC – No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR – No Observable Effect Loading Rate; OECD – Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT – Persistent, Bioaccumulative and Toxic substance; REACH – Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration,, Authorisation and Restriction of Chemicals; SADT – Self-Accelerating Decomposition Temperature: SDS – Safety Data Sheet; UN – United Nations; vPvB – Very Persistent and Very BIoaccumulative; DSL – Domestic Substances List (Canada); KECI – Korea Existing Chemicals Inventory; TSCA –Toxic Substances Control Act (United States); AICS – Australian Inventory of Chemical Substances; IECSC – Inventory of Existing Chemical Substances in China; ENCS – Existing and New Chemical Substances (Japan); ISHL – Industrial Safety and Health Law (Japan); PICCS – Phillippines Inventory of Chemicals and Chemical Substances; NZloC – New Zealand Inventory of Chemicals; TCSI – Taiwan Chemical Substance Inventory; CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act; DOT – Department of Transportation; EHS – Extremely Hazardous Substance; HMIS – Hazardous Materials Identification System; MSHA – Mine Safety and Health Administration; NFPA – National Fire Protection Association; RCRA – Resource Conservation and Recovery Act; RQ – Reportable Quantity; SARA – Superfund Amendments and Reauthorization Act; CMR – Carcinogen, Mutagen or Reproductive Toxicant; GLP – Good Laboratory Practice; ERG – Emergency Response Guide; NTP – National Toxicology Program; UNRTDG – United National Recommendations on the Transport of Dangerous Goods.

Sources of key data used to Internal technical data, data from raw material SDSs,

compile the Material Safety Data Sheet.	OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Revision Data: **08/26/2015**

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8