

**Duralink(TM) HTS**

Version           Revision Date:           SDS Number:           Date of last issue: -  
1.1                03/14/2018           150000093035        Date of first issue: 09/06/2016  
PRD                

**SECTION 1. IDENTIFICATION**

Product name                : Duralink(TM) HTS  
Product code                : 34009-00, P3400900, P3400901, P3400902, P3400903,  
P3400904

**Manufacturer or supplier's details**

Company name of supplier   : Eastman Chemical Company  
Address                       : 200 South Wilcox Drive  
Kingsport TN 37660-5280  
Telephone                    : (423) 229-2000  
Emergency telephone        : CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCN7321

**Recommended use of the chemical and restrictions on use**


Recommended use            : Industrial chemical  
Restrictions on use         : None known.

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with 29 CFR 1910.1200**

Combustible dust

Skin sensitization         : Category 1

**GHS label elements**

Hazard pictograms         : 

Signal Word                 : Warning

Hazard Statements         : May form combustible dust concentrations in air.  
H317 May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P210 Keep away from open flames/hot surfaces. - No smoking.

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P243 Take precautionary measures against static discharge.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

**Disposal:**

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

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
Substance name : Disodium S,S'-hexane-1,6-diyldi(thiosulphate) dihydrate

**Ingredients**

Chemical name	CAS-No.	Concentration (% w/w)
disodium S,S'-hexane-1,6-diyldi(thiosulphate) dihydrate	5719-73-3	98 - 99
white mineral oil	8042-47-5	1 - 2

**SECTION 4. FIRST AID MEASURES**

If inhaled : If breathing is difficult, give oxygen.  
Get medical attention if symptoms occur.

In case of skin contact : Wash off immediately with soap and plenty of water.  
Remove contaminated clothing and shoes.  
If skin irritation or rash occurs: Get medical advice/ attention.  
Wash contaminated clothing before reuse.

In case of eye contact : Immediately flush eye(s) with plenty of water.  
Get medical attention if symptoms occur.

If swallowed : Rinse mouth.  
If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.

Notes to physician : Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES**

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- Suitable extinguishing media : Water spray  
Foam  
Dry powder  
Carbon dioxide (CO2)
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.  
Runoff may pollute waterways.
- Hazardous combustion products : Carbon oxides  
Sulfur oxides
- Further information : Minimize dust generation and accumulation.
- Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Avoid contact with skin, eyes and clothing.  
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take precautionary measures against static discharge.  
Local authorities should be advised if significant spillages cannot be contained.
- Environmental precautions : Clear up spills immediately and dispose of waste safely.  
Avoid release to the environment.
- Methods and materials for containment and cleaning up : Sweep up and shovel into suitable containers for disposal.
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**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Minimize dust generation and accumulation.
- Advice on safe handling : Wear appropriate personal protective equipment.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
Use only in area provided with appropriate exhaust ventilation.  
Minimize dust generation and accumulation.  
Take precautionary measures against static discharge.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredients with workplace control parameters**

**Engineering measures** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal protective equipment**

**Respiratory protection** : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**Hand protection**

**Remarks** : Protective gloves Skin should be washed after contact.

**Eye protection** : Wear safety glasses with side shields (or goggles).

**Skin and body protection** : Wear suitable protective clothing.

**Protective measures** : Ensure that eye flushing systems and safety showers are located close to the working place.

**Hygiene measures** : Handle in accordance with good industrial hygiene and safety practice.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wash contaminated clothing before reuse.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance** : powder

**Color** : off-white

**Odor** : mild, musty

**Odor Threshold** : not determined

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pH	:	not determined
Melting point/range	:	127 - 137 °C
	:	decomposes
Evaporation rate	:	not determined
Flammability (solid, gas)	:	May form combustible dust concentrations in air.
Self-ignition	:	234 °C
Upper explosion limit	:	not determined
Lower explosion limit	:	325 g/m <sup>3</sup>
Vapor pressure	:	33.5 hPa (40 °C)
Relative vapor density	:	not determined
Relative density	:	1.40 (20 °C)
Density	:	1.4 g/cm <sup>3</sup>
Solubility(ies) Water solubility	:	307 g/l insoluble (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	not determined
Decomposition temperature	:	>= 250 °C Method: DSC
Explosive properties	:	Not classified
Oxidizing properties	:	Not classified
Molecular weight	:	354.41 g/mol
Dust deflagration index (Kst)	:	112 m, b <sub>2</sub> /s
Dust explosion class	:	St 1 - weak explosion
Minimum ignition energy	:	260 - 1,000 J

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	None reasonably foreseeable.
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Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Stable
Conditions to avoid	:	Minimize dust generation and accumulation.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Emits acrid smoke and fumes when heated to decomposition.

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## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

Skin contact

**Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity	:	Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available
Acute dermal toxicity	:	Remarks: No data available

**Ingredients:****disodium S,S'-hexane-1,6-diyl di(thiosulphate) dihydrate:**

Acute oral toxicity	:	LD50 Oral (Rat, Male and Female): > 5,000 mg/kg Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity	:	LD50 Dermal (Rabbit, Male and Female): > 5,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Remarks: No data available

**Ingredients:****disodium S,S'-hexane-1,6-diyl di(thiosulphate) dihydrate:**

Species: Rabbit  
Exposure time: 24 h  
Assessment: Not classified as hazardous.  
Method: Draize Test  
Result: slight

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**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: No data available

**Ingredients:****disodium S,S'-hexane-1,6-diyl-di(thiosulphate) dihydrate:**

Species: Rabbit

Result: slight

Assessment: Not classified

Method: Draize Test

**Respiratory or skin sensitization****Skin sensitization**

May cause an allergic skin reaction.

**Respiratory sensitization**

Not classified based on available information.

**Product:**

Remarks: No data available

**Ingredients:****disodium S,S'-hexane-1,6-diyl-di(thiosulphate) dihydrate:**

Test Type: Skin Sensitization

Species: Guinea pig

Assessment: Skin sensitization

Method: OECD Test Guideline 406

Result: May cause sensitization by skin contact.

Test Type: Skin Sensitization

Species: Humans

Assessment: Skin sensitization

Method: Human Repeat Insult Patch Test

Result: May cause sensitization by skin contact.

**Germ cell mutagenicity**

Not classified based on available information.

**Ingredients:****disodium S,S'-hexane-1,6-diyl-di(thiosulphate) dihydrate:**

Genotoxicity in vitro : Test Type: Salmonella typhimurium assay (Ames test)  
Metabolic activation: +/- activation  
Method: Bacterial Reverse Mutation Assay  
Result: negative

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: Test Type: Mutagenicity - Mammalian  
Metabolic activation: +/- activation  
Method: In vitro Mammalian Chromosome Aberration Test  
Result: negative

Genotoxicity in vivo : Species: Rat  
Application Route: oral: gavage  
Method: Mammalian Bone Marrow Chromosome Aberration Test  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Product:**

Remarks: This information is not available.

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP**

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

**Reproductive toxicity**

Not classified based on available information.

**Product:**

Effects on fertility : Remarks: No data available

**STOT-single exposure**

Not classified based on available information.

**Product:**

Remarks: No data available

**Ingredients:****disodium S,S'-hexane-1,6-diyl di(thiosulphate) dihydrate:**

Assessment: Not classified

**STOT-repeated exposure**

Not classified based on available information.

**Product:**

Remarks: No data available



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**Ingredients:****disodium S,S'-hexane-1,6-diylldi(thiosulphate) dihydrate:**

Assessment: Not classified

**Repeated dose toxicity****Ingredients:****disodium S,S'-hexane-1,6-diylldi(thiosulphate) dihydrate:**

Species: Rat, Male and Female  
: 500 mg/kg  
NOAEL: 1,000 mg/kg  
Application Route: by gavage  
Exposure time: 90 days

**Aspiration toxicity**

Not classified based on available information.

**Product:**

No data available

**Ingredients:****disodium S,S'-hexane-1,6-diylldi(thiosulphate) dihydrate:**

Not applicable

**Information on likely routes of exposure****Product:**

Inhalation	:	Remarks: None known.
Skin contact	:	Remarks: May cause an allergic skin reaction.
Eye contact	:	Remarks: None known.
Ingestion	:	Remarks: None known.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Ingredients:****disodium S,S'-hexane-1,6-diylldi(thiosulphate) dihydrate:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 1,000 mg/l  
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l  
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 80 mg/l  
Exposure time: 48 h

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): > 107 mg/l  
Exposure time: 72 h

NOEC: (Selenastrum capricornutum (green algae)): > 107 mg/l  
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50 (Daphnia magna (Water flea)): 250 mg/l  
Exposure time: 21 d

NOEC: (Daphnia magna (Water flea)): 190 mg/l  
Exposure time: 21 d

Toxicity to soil dwelling organisms : NOEC:: > 940 mg/kg

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

**Persistence and degradability****Ingredients:****disodium S,S'-hexane-1,6-diyl di(thiosulphate) dihydrate:**

Biodegradability : Biodegradation: < 10 %  
Method: Ready Biodegradability: CO2 Evolution Test  
Remarks: Not readily biodegradable.

Biodegradation: 0 %  
Exposure time: 76 d  
Method: Inherent Biodegradability: Modified SCAS Test  
Remarks: Not biodegradable.

**Bioaccumulative potential****Ingredients:****disodium S,S'-hexane-1,6-diyl di(thiosulphate) dihydrate:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: -3.87

log Pow: -4.72

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**Mobility in soil**

**Ingredients:**

**disodium S,S'-hexane-1,6-diyl-di(thiosulphate) dihydrate:**

Distribution among environmental compartments : Koc: 0.23 - 0.64, log Koc: < -0.19  
Method: OECD Test No. 106: Adsorption - Desorption Using a Batch Equilibrium Method

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know**

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

Ingredients	CAS-No.	Component TPQ (lbs)
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**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

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**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.

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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

DSL	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;

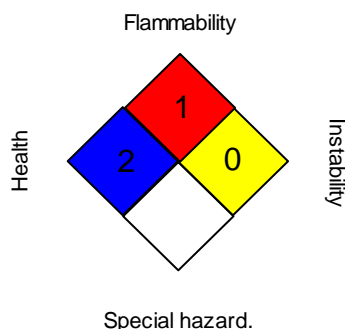
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ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification 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; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

## Further information

## NFPA:



## HMIS® IV:

HEALTH		2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Revision Date : 03/14/2018

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only

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to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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