Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 09/04/2015 Reviewed on 09/04/2015

*

1 Identification

· **Product identifier**

· **Trade name: NuFlo H2S Stop Z**
· **Product number:** NG-H2S SZ
· **CAS Number:**
1314-13-2
· **EC number:**
215-222-5
· **Index number:**
030-013-00-7
· **Relevant identified uses of the substance or mixture and uses advised against:**
· **Product description** Hydrogen Sulfide scavenger admixture for drilling mud.

· **Details of the supplier of the safety data sheet:**
· **Manufacturer/Supplier:**
NuGenTec Oilfield Chemicals
1155 Park Avenue, Emeryville, CA 94608
ofcadmin@nugentec.com www.nugentec.com/oilfield
888-996-8436 or 707-891-3012 for product information
· **Emergency telephone number:**
PERS Emergency Response: Domestic and Canada - 1-800-633-8253, International 1-801-629-0667

2 Hazard(s) identification

· **Classification of the substance or mixture:**


GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· **Label elements:**
· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**


GHS09

· **Signal word:** Warning
· **Hazard statements:**
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.
· **Precautionary statements:**
Avoid release to the environment.
Collect spillage.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Unknown acute toxicity:**
0 % of the mixture consists of component(s) of unknown toxicity.

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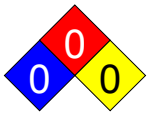
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

· **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/information on ingredients

· **Chemical characterization: Substance**
· **CAS No. Description**
1314-13-2 Zinc Oxide 100%
· **Identification number(s)**
· **EC number:** 215-222-5
· **Index number:** 030-013-00-7
· **Description:** Mixture of substances listed below with nonhazardous additions.

* 4 First-aid measures

· **Description of first aid measures:**
· **After inhalation:**
Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
· **After skin contact:**
Generally the product does not irritate the skin.
Wash with water and soap and rinse thoroughly.
If skin irritation occurs, consult a doctor.
· **After eye contact:**
Do NOT rub eyes. Immediately rinse opened eye(s) for at least 15 minutes under running water, lifting upper and lower lids occasionally. If symptoms persist, consult a physician.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting.
If swallowed and symptoms occur, consult a doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
· **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

* 5 Fire-fighting measures

· **Extinguishing media:**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture:**
If incinerated, product will release the following toxic fumes: Oxides of Zinc.

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· ***Advice for firefighters:***
· ***Protective equipment:***
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures:***
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Avoid formation of dust.
Avoid contact with skin, eyes and clothing.
Wear dust mask
· ***Environmental precautions:***
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· ***Methods and material for containment and cleaning up:***
Dispose of the collected material according to regulations.
· ***Reference to other sections:***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

· ***Handling***
· ***Precautions for safe handling:*** No special precautions are necessary if used correctly.
· ***Information about protection against explosions and fires:*** No special measures required.

· ***Conditions for safe storage, including any incompatibilities:***
Store away from strong acids, strong bases and strong oxidizing agents.
· ***Storage***
· ***Requirements to be met by storerooms and receptacles:*** No special requirements.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:*** None.
· ***Specific end use(s):*** No further relevant information available.

* 8 Exposure controls/personal protection

· ***Additional information about design of technical systems:*** No further data; see section 7.

· ***Control parameters:***
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

· ***Components with occupational exposure limits:***	
1314-13-2 Zinc Oxide	
PEL	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction and fume

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REL	Short-term value: 10** mg/m³ Long-term value: 5* 5** mg/m³ Ceiling limit value: 15* mg/m³ *dust only **fume
TLV	Short-term value: 10* mg/m³ Long-term value: 2* mg/m³ *as respirable fraction

· ***Additional information:*** The lists that were valid during the creation of this SDS were used as basis.

· ***Exposure controls:***
· ***Personal protective equipment:***
· ***General protective and hygienic measures:***
Wash hands before breaks and at the end of work.
Keep away from foodstuffs, beverages and feed.
Avoid contact with eyes, skin and clothing.
· ***Breathing equipment:***

Dust mask

· ***Protection of hands:*** Not required.
· ***Material of gloves:***
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· ***Penetration time of glove material:*** Not applicable.
· ***Eye protection:***

Tightly sealed goggles

· ***Body protection:*** Not required.

*
9 Physical and chemical properties

· ***Information on basic physical and chemical properties***
· ***General Information***
· ***Appearance:***
Form: Powder
Color: White
· ***Odor:*** Mild
· ***Odor threshold:*** Not determined.

· ***pH-value:*** Not applicable.

· ***Change in condition***
Melting point/Melting range: 1975 °C (3587 °F)
Boiling point/Boiling range: Not determined.

· ***Flash point:*** > 999 °C (> 1830 °F)

· ***Flammability (solid, gaseous):*** Product is not flammable.

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· **Ignition temperature:**
Decomposition temperature: Not determined.
· **Auto igniting:** Not determined.
· **Danger of explosion:** Product does not present an explosion hazard.
· **Explosion limits:**
Lower: Not determined.
Upper: Not determined.
· **Vapor pressure:** Not applicable.
· **Density @ 20 °C (68 °F):** 5.61 g/cm³ (46.815 lbs/gal)
· **Relative density:** Not determined.
· **Vapor density:** Not applicable.
· **Evaporation rate:** Not applicable.
· **Solubility in / Miscibility with:**
Water: Soluble.
· **Partition coefficient (n-octanol/water):** Not determined.
· **Viscosity:**
Dynamic: Not applicable.
Kinematic: Not applicable.
Organic solvents: 0.0 %
Solids content: 100.0 %
· **Other information:** No further relevant information available.

* 10 Stability and reactivity

· **Reactivity:** No further relevant information available.
· **Chemical stability:** Stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions:** No dangerous reactions known.
· **Conditions to avoid:** No further relevant information available.
· **Incompatible materials:** Strong acids, strong bases and strong oxidizing agents.
· **Hazardous decomposition products:** Oxides of Zinc.

* 11 Toxicological information

· **Information on toxicological effects:**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
1314-13-2 Zinc Oxide		
Oral	LD50	> 5000 mg/kg (rat)

· **Primary irritant effect:**
· **On the skin:** No irritating effect.
· **On the eye:** No irritating effect.
· **Additional toxicological information:**

· **Carcinogenic categories:**
· **IARC (International Agency for Research on Cancer):**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans

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Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans

· **NTP (National Toxicology Program):**
Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**
Substance is not listed.

* 12 Ecological information

· **Toxicity:** The hazards for the aquatic environment are unknown.
· **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.
· **Persistence and degradability:** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential:** No further relevant information available.
· **Mobility in soil:** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Very toxic for fish
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
· **Results of PBT and vPvB assessment:**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects:** No further relevant information available.

* 13 Disposal considerations

· **Waste treatment methods:**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packagings:**
· **Recommendation:**
Dispose of as unused product.
Disposal must be made according to official regulations.

* 14 Transport information

· **UN-Number:**
· **DOT** Non-Regulated Material
· **ADR, IMDG, IATA** UN3077
· **UN proper shipping name:**
· **DOT** Non-Regulated Material
· **ADR** UN3077 Environmentally hazardous substances, solid, n.o.s. (Zinc Oxide)

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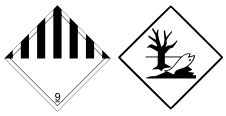
· **IMDG**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide), MARINE POLLUTANT
· **IATA**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide)
· **Transport hazard class(es):**	
· **DOT**	
· **Class:**	Non-Regulated Material
· **ADR**	



· **Class:**	9 (M7) Miscellaneous dangerous substances and articles
· **Label:**	9
· **IMDG, IATA**	

· **Class:**	9 Miscellaneous dangerous substances and articles
· **Label:**	9
· **Packing group:**	
· **DOT**	Non-Regulated Material
· **ADR, IMDG, IATA**	III
· **Environmental hazards:**	
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special marking (IATA):**	Symbol (fish and tree)
· **Special precautions for user:**	Warning: Miscellaneous dangerous substances and articles
· **Danger code (Kemler):**	90
· **EMS Number:**	F-A,S-F
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Excepted quantities (EQ):**	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· **IMDG**	
· **Limited quantities (LQ):**	5 kg
· **Excepted quantities (EQ):**	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· **UN "Model Regulation":**	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (ZINC OXIDE), 9, III, (E)

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* 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
· **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**
Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**
Substance is listed.

· **TSCA (Toxic Substances Control Act):**
Substance is listed.

· **California Proposition 65:**

· **Chemicals known to cause cancer:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.

· **Chemicals known to cause developmental toxicity:**
Substance is not listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

1314-13-2	Zinc Oxide	D, I, II

· **TLV (Threshold Limit Value established by ACGIH):**
Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**
Substance is not listed.

· **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS09

· **Signal word:** Warning
· **Hazard statements:**
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.
· **Precautionary statements:**
Avoid release to the environment.
Collect spillage.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**
Non-Regulated Material

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· ***State Right to Know:***
None of the ingredients are listed

· ***Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

16 Other information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· ***Date of preparation / last revision:*** 09/04/2015 / -

· ***Abbreviations and acronyms:***

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

· **** Data compared to the previous version altered.***

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