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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : PHT KZ 20/20
Product code : M77695

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

1.3. Details of the supplier of the safety data sheet

JR Simplot Company Boise, ID 83707 T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute Tox. 4 (Oral) H302 Skin Irrit. 2 H315 Eye Dam. 1 H318 STOT RE 2 H373

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)







GHS05 GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H302 - Harmful if swallowed H315 - Causes skin irritation

H318 - Causes serious eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash ... thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/... if you feel unwell

P302+P352 - If on skin: Wash with plenty of water/...

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing P310 - Immediately call a poison center/doctor/...
P314 - Get medical advice/attention if you feel unwell P321 - Specific treatment (see ... on this label)

P330 - Rinse mouth

P332+P313 - If skin irritation occurs: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse

P501 - Dispose of contents/container to ...

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
calcium carbonate	(CAS No) 471-34-1		Skin Irrit. 2, H315 Eye Irrit. 2B, H320
copper(II)hydroxide	(CAS No) 20427-59-2		Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320
zinc oxide	(CAS No) 1314-13-2		Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium Lignosulfonate	(CAS No) 8061-51-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335 STOT RE 2, H373
Sodium Alkyinaphthalene Sulfonate			Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice

(show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation

occurs: Get medical advice/attention. Specific treatment (see ... on this label).

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON

CENTER/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes damage to organs.
Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : Stable.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from

other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation of

vapor. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use.

Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

zinc oxide (1314-13-2)		
USA ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
USA ACGIH	ACGIH STEL (mg/m³)	10 mg/m³

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Fine dry powder.

Color : light blue

Odor : Copper

Odor threshold : No data available pH : No data available

pH solution : 7.8 1% solution of copper hydrodixe

Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available : No data available Freezing point Boiling point : No data available : No data available Flash point Auto-ignition temperature : No data available Decomposition temperature : No data available No data available Flammability (solid, gas) Vapor pressure : No data available

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Relative vapor density at 20 °C : No data available
Relative density : No data available
Density : 0.1917 g/ml
Solubility : soluble.

Water: Solubility in water of component(s) of the mixture :

•: •: 0.0014 g/100ml •: 0.00029 g/100ml •: 522000 mg/l

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

NH3, CN, SOx, POx.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

PHT KZ 20/20	
ATE US (oral)	500.0000000 mg/kg body weight

copper(II)hydroxide (20427-59-2)		
LD50 oral rat	1000 mg/kg (Rat)	
LD50 dermal rabbit	> 3160 mg/kg (Rabbit)	
ATE US (oral)	1000.0000000 mg/kg body weight	

calcium carbonate (471-34-1)	
LD50 oral rat	6450 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Literature study; >2000 mg/kg; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	> 3 mg/l/4h (Rat; Experimental value)
ATE US (oral)	6450.00000000 mg/kg body weight

zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 5.7 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	> 5.71 ppm/4h mouse

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Sodium Lignosulfonate (8061-51-6)	
LD50 oral rat	> 40000 mg/kg (Rat)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated	: May cause damage to organs through prolonged or repeated exposure.
exposure)	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.

SECTION 12: Ecological information

Symptoms/injuries after ingestion

12.1. **Toxicity**

calcium carbonate (471-34-1)		
TLM fish 1	> 56000 mg/l (96 h; Gambusia affinis)	
Threshold limit algae 1	> 14 mg/l (72 h; Desmodesmus subspicatus; GLP)	
Threshold limit algae 2	14 mg/l (72 h; Desmodesmus subspicatus; GLP)	
zinc oxide (1314-13-2)		
LC50 fish 1	0.59 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Zinc ion)	
EC50 Daphnia 1	0.068 mg/l (48 h; Daphnia magna; Zinc ion)	
LC50 fish 2	0.14 mg/l (96 h; Oncorhynchus mykiss)	
Threshold limit algae 1	0.136 mg/l (72 h; Pseudokirchneriella subcapitata; Zinc ion)	
Threshold limit algae 2	< 0.12 mg/l (Algae; Zinc ion)	
Sodium Lignosulfonate (8061-51-6)		
LC50 fish 1	7300 mg/l 48 h; Salmo gairdneri (Oncorhynchus mykiss)	

: Swallowing a small quantity of this material will result in serious health hazard.

12.2. Persistence and degradability	
PHT KZ 20/20	
Persistence and degradability	Not established.
copper(II)hydroxide (20427-59-2)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
calcium carbonate (471-34-1)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil. Not established.
ThOD	Not applicable (inorganic)
zinc oxide (1314-13-2)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Low potential for adsorption in soil. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

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zinc oxide (1314-13-2)		
BOD (% of ThOD)	Not applicable	
Sodium Lignosulfonate (8061-51-6)		
Persistence and degradability	Not readily biodegradable in water. Not established.	
Sodium Alkyinaphthalene Sulfonate		
Persistence and degradability	Not established.	
2.3. Bioaccumulative potential		
PHT KZ 20/20		
Bioaccumulative potential	Not established.	
copper(II)hydroxide (20427-59-2)		
Bioaccumulative potential	No bioaccumulation data available. Not established.	
calcium carbonate (471-34-1)		
Log Pow	-2.12 (Estimated value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.	
zinc oxide (1314-13-2)		
Log Pow	1.53 (Estimated value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.	
Sodium Lignosulfonate (8061-51-6)		
Log Pow	-3.45 (Estimated value)	
209 : 011		
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.	
	Bioaccumulation: not applicable. Not established.	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to ...

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document description

Transport by sea

No additional information available

Air transport

No additional information available

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:

CAS No C<=1.00%

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Sodium Alkyinaphthalene Sulfonate

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

zinc oxide (1314-13-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

:

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated
	exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

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