SAFETY DATA SHEET

WHITE GREASE

Section 1. Identification

GHS product identifier : WHITE GREASE

Product type : Solid.

Product code : 907/909

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

Product use: For

professional use only.

: Industrial applications: Lubricants; grease.

Supplier's details : Kleen-Flo Tumbler Industries Ltd

75 Advance Blvd. Brampton, ON L6T 4N1

Tel: 905-793-4311 Fax: 905793-4318

Emergency telephone

number

CANUTEC: 613-996-6666

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the

substance or mixture

: SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 2.7%

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements: May cause an allergic skin reaction.

Precautionary statements

Prevention : Wear protective gloves. Avoid breathing dust. Contaminated work clothing should not

be allowed out of the workplace.

Validated on 4/14/2015. 1/12

Section 2. Hazards identification

Response : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before

reuse. If skin irritation or rash occurs: Get medical attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Hazards not otherwise

classified None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Ingredient name	%	CAS number
zinc oxide calcium bis(dinonylnaphthalenesulphonate)	1-5 0.1-1	1314-13-2 57855-77-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Validated on 4/14/2015. 2/12

Section 4. First aid measures

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

: No specific data. Eye contact **Inhalation** : No specific data.

Skin contact : Adverse symptoms may include the following:

> irritation redness

Ingestion No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

: Treat symptomatically. Contact poison treatment specialist immediately if large Notes to physician

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be

dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire – Fighting measures

Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

: Decomposition products may include the following materials:

Unsuitable extinguishing

media

: None known.

Specific hazards arising

from the chemical

: No specific fire or explosion hazard.

Hazardous thermal

decomposition products

carbon dioxide carbon monoxide

metal oxide/oxides

Special protective actions

for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable

Special protective

equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Validated on 4/14/2015. 3/12

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
zinc oxide	NIOSH REL (United States, 10/2013).
	CEIL: 15 mg/m³ Form: Dust
	TWA: 5 mg/m³ 10 hours. Form: Dust and
	fumes
	STEL: 10 mg/m³ 15 minutes. Form: Fume
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 5 mg/m ³ 8 hours. Form: Fume
	STEL: 10 mg/m³ 15 minutes. Form: Fume
	TWA: 5 mg/m³ 8 hours. Form: Respirable
	fraction
	TWA: 10 mg/m³ 8 hours. Form: Total dust
	OSHA PEL (United States, 2/2013).
	TWA: 5 mg/m³ 8 hours. Form: Fume
	TWA: 5 mg/m³ 8 hours. Form: Respirable
	fraction
	TWA: 15 mg/m ³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 4/2014).
	TWA: 2 mg/m³ 8 hours. Form: Respirable
	fraction
	STEL: 10 mg/m³ 15 minutes. Form:

Validated on 4/14/2015. 4/12

Section 8. Exposure controls/personal protection

Respirable fraction

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [grease]

Color : White.

Odor : Mild. Petroleum oil
Odor threshold : Not available.

PH : Not applicable.

Melting point: Not available.Boiling point: Not available.Flash point: Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Validated on 4/14/2015. 5/12

Section 9. Physical and chemical properties

Lower and upper explosive

(flammable) limits

: Not available.

Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 0.9 g/cm³

Solubility : Insoluble in the following materials: cold water and hot water.

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
calcium bis (dinonylnaphthalenesulphonate)	LD50 Dermal	Rabbit	>20 g/kg	-
(dinonyinaphinalenesalphonate)	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
calcium bis (dinonylnaphthalenesulphonate)	Skin - Moderate irritant	Rabbit	-	0.5 Mililiters	-

Conclusion/Summary

Skin : Slightly irritating to the skin. No significant irritation expected other than possible

mechanical irritation.

Eyes : Slightly irritating to the eyes. No significant irritation expected other than possible

mechanical irritation.

Respiratory: Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation. Pre-existing respiratory disorders may be aggravated by over-exposure to this product.

Sensitization

Conclusion/Summary

Validated on 4/14/2015. 6/12

Section 11. Toxicological information

Skin : No specific information is available in our database regarding the skin sensitizing

properties of this product. Sensitization not suspected for humans.

Respiratory Sensitization not suspected for humans.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself. Mutagenicity not suspected for

humans.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself. Carcinogenicity not suspected for

humans.

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself. Not considered to be dangerous to

humans, according to our database.

Teratogenicity

Conclusion/Summary There are no data available on the mixture itself. Teratogenicity not suspected for

humans.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards. Inhalation : No known significant effects or critical hazards.

Skin contact May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact No specific data. Inhalation No specific data.

Skin contact : Adverse symptoms may include the following: irritation

redness

Ingestion No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects Long term exposure

: Not available.

Potential immediate

: Not available.

effects

: Not available. Potential delayed effects

Validated on 4/14/2015. 7/12

Section 11. Toxicological information

Potential chronic health effects

Conclusion/Summary : Contains material that may cause target organ damage, based on animal data.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
zinc oxide	Acute IC50 1.85 mg/l Marine water Acute IC50 46 µg/l Fresh water	Algae - Skeletonema costatum Algae - Pseudokirchneriella subcapitata - Exponential growth phase	96 hours 72 hours
	Acute LC50 98 μg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary

: There are no data available on the mixture itself.

Persistence and degradability

Conclusion/Summary : This product has not been tested for biodegradation. Not readily biodegradable. This product is not expected to bioaccumulate through food chains in the environment.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
White Grease	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
zinc oxide	-	60960	high

Mobility in soil

Soil/water partition : Not available.

coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in

Validated on 4/14/2015. 8/12

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	-	-	-	-	-	-

Special precautions for user

: **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

: Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 307: zinc oxide; zinc bis(dipentyldithiocarbamate)

Clean Air Act Section 112

(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

: Not listed

Clean Air Act Section 602 Class II Substances

DEA List I Chemicals (Precursor Chemicals)

: Not listed

DEA List II Chemicals (Essential Chemicals)

: Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

Validated on 4/14/2015. 9/12

Section 15. Regulatory information

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
zinc oxide calcium bis (dinonylnaphthalenesulphonate)	1-5 0.1-1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	zinc oxide	1314-13-2	1-5
Supplier notification	zinc oxide	1314-13-2	1-5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Connecticut Carcinogen Reporting

Connecticut Hazardous Material Survey

Florida substances

Illinois Chemical Safety Act

Illinois Toxic Substances Disclosure to Employee

Act

: None of the components are listed.

Louisiana Reporting : None of the components are listed.

Louisiana Spill : None of the components are listed.

Massachusetts Spill : None of the components are listed.

Massachusetts Substances : The following components are listed: TITANIUM DIOXIDE;

ZINC OXIDE FUME

Michigan Critical Material : None of the components are listed.

Minnesota Hazardous Substances : 1

New Jersey Spill

New Jersey Toxic Catastrophe Prevention Act

New Jersey Hazardous Substances

New York Acutely Hazardous Substances
New York Toxic Chemical Release Reporting

Pennsylvania RTK Hazardous Substances

: None of the components are listed.

None of the components are listed.

None of the components are listed.

: The following components are listed: TITANIUM DIOXIDE;

TITANIUM OXIDE (TiO2); ZINC OXIDE

: None of the components are listed.

None of the components are listed.

: The following components are listed: TITANIUM OXIDE

(TIO2); ZINC OXIDE (ZNO)

: None of the components are listed.

Rhode Island Hazardous Substances

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Validated on 4/14/2015. 10/12

Section 15. Regulatory information

Ingredient name	Cancer	•	level	Maximum acceptable dosage level	
titanium dioxide	Yes.	No.	No.	No.	

International regulations

Chemical Weapon Convention List Schedules I. II & III Chemicals

Not listed.

Montreal Protocol (Annexes A. B. C. E)

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : All components are listed or exempted.

Malaysia : Not determined.

New Zealand: All components are listed or exempted.Philippines: All components are listed or exempted.Republic of Korea: All components are listed or exempted.Taiwan: All components are listed or exempted.

Canada

WHMIS (Canada) : Class D-2A: Material causing other toxic effects (Very toxic).

Canadian lists

Canadian NPRI : The following components are listed: Zinc (and its compounds)

CEPA Toxic substances : None of the components are listed.Canada inventory; DSL/ : All components are listed or exempted.

NDSL

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.

National Fire Protection Association (U.S.A.)

Validated on 4/14/2015. 11/12

Section 16. Other information



History

Date of issue: 10/4/17 Prepared by: Kleen-Flo Tumbler Ind. Ltd.

Guidelines for SDS use: The product described in this SDS is a consumer product. It is safe for use by consumers as described on the product label under normal, foreseeable conditions. This SDS is designed to provide additional valuable safety and handling information.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Validated on 4/14/2015. 12/12