

SAFETY DATA SHEET.

Issuing date 28-Apr-2015

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Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name TUFF KOTE-HEAVY DUTY MOLD RELEASE

Recommended use of the chemical and restrictions on use

Product Type Highly Flammable Liquid and Vapor
Synonyms None

Supplier's details

Recommended Use Mold Release.
Uses advised against No information available

Manufacturer:
Nanoplas Inc.
1901 Godfrey Ave. SW
Grand Rapids, MI 49509

Emergency telephone number
Chemical Emergency Phone Number Chemtrec 1-800-424-9300
Company Emergency Phone Number 616-452-3707

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable Liquids	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements

Causes skin irritation
 Causes serious eye irritation
 May cause respiratory irritation. May cause drowsiness or dizziness
 May be fatal if swallowed and enters airways
 Extremely flammable liquid and vapor



Appearance Hazy

Physical state Aerosol

Odor Solvent

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/Bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/.? /equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge

Precautionary Statements - Response

Specific treatment (see first aid on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention
 If skin irritation occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Keep cool.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
HEPTANE	64742-49-0	80-90
ISOPROPYL ALCOHOL	67-63-0	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Artificial respiration and/or oxygen may be necessary. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Main Symptoms Irritating to skin. Causes eye irritation. Inhalation causing Central Nervous System effects. Ingestion causing lung damage.

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

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water fog. Dry chemical. Carbon dioxide (CO₂). Cool containers/tanks with water spray.

Unsuitable Extinguishing Media Keep away from heat and sources of ignition. Cool containers / tanks with water spray.

Specific hazards arising from the chemical

Extremely flammable. Risk of ignition. In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge none.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal precautions**

Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Avoid skin contact. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.

Environmental precautions**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up**Methods for Containment**

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Ground and bond containers when transferring material. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling**Advice on safe handling**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children. Store locked up.

Incompatible products

Strong acids, alkalis, or oxidizing agents.

Aerosol Level

3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
HEPTANE 64742-49-0	TLV: 400 ppm STEL: 500 ppm	TWA: 500 ppm	-
ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Chemical resistant apron. Protective gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol	Odor	Solvent
Appearance	Hazy	Odor Threshold	No information available
Color	amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	-4 °C / 24.8 °F	(based on components)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	.719	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	

Other information

VOC Content(%) 87.75

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong acids, alkalis, or oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	Vapors may irritate throat and respiratory system. May cause drowsiness and dizziness based on components. May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Irritating to eyes. Avoid contact with eyes.
Skin contact	Irritating to skin. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. Avoid contact with skin.
Ingestion	May be harmful if swallowed. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
HEPTANE 64742-49-0	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h
ISOPROPYL ALCOHOL 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to respiratory system. Causes serious eye irritation. Irritating to skin. May be harmful or fatal if ingested.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Eye damage/irritation Irritating to eyes.
Irritation Irritating to eyes, respiratory system and skin.
Sensitization None known.

Germ Cell Mutagenicity	None known.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
Specific target organ systemic toxicity (single exposure)	May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ systemic toxicity (repeated exposure)	No information available.
Target Organ Effects	Eyes, Respiratory system, Skin.
Neurological effects	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	3040 mg/kg
ATEmix (dermal)	3846 mg/kg
ATEmix (inhalation-vapor)	30 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
ISOPROPYL ALCOHOL 67-63-0	1000 mg/L EC50 Desmodesmus subspicatus 96h 1000 mg/L EC50 Desmodesmus subspicatus 72h	11130 mg/L LC50 Pimephales promelas 96h static 9640 mg/L LC50 Pimephales promelas 96h flow-through 1400000 µg/L LC50 Lepomis macrochirus 96h	-	13299 mg/L EC50 Daphnia magna 48h

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
ISOPROPYL ALCOHOL 67-63-0	0.05

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods	This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
Contaminated packaging	Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground	UN1993, FLAMMABLE LIQUIDS, N.O.S., (HEPTANE, ISOPROPANOL), 3, PG II
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IATA UN1993, FLAMMABLE LIQUIDS, N.O.S., (HEPTANE, ISOPROPANOL), 3, PG II

IMDG UN1993, FLAMMABLE LIQUIDS, N.O.S., (HEPTANE, ISOPROPANOL), 3, PG II

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
HEPTANE	X	X	X	X	X	X	X	X
ISOPROPYL ALCOHOL	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
ISOPROPYL ALCOHOL - 67-63-0	67-63-0	1-10	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product does not contain any known Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ISOPROPYL ALCOHOL 67-63-0	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

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

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

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Revision Note

No information available

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet