Safety Data Sheet

PERMA FLUX

SDS Revision Date: **04/02/2015**

Sid Harvey item # F7-20 SDS # Z0114

1. Identification

1.1. Product identifier

Product Identity	PERMA FLUX
Alternate Names	15-115, 15-117, Blended Formula, PERMA FLUX

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

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-45 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Irrit. 2;H315 Cause skin irritation

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

.

[Response]:

P312: Call a POISON CENTER or doctor / physician if you feel unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
ZINC CHLORIDE CAS#: 7646-85-7	<5	Acute toxicity, 4 Skin corrosion 1B Serious eye damage 1 Acute aquatic toxicity 1 Chronic aquatic toxicity 1	[1][2]
WAX CAS#: N/A	>50	Not Classified	[1]
HEAVY PARAFFINIC PETROLEUM DISTILLATES CAS#: 64742-65-0	>20	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

Overview	No specific symptom data available. See section 2 for further details.
Inhalation	Harmful if inhaled.

5. Fire-fighting measures

5.1. Extinguishing media

Water fog, C02, dry chemical, universal foams

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

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

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing.

ERG Guide No. ---

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Wash thoroughly after handling. Do not breathe vapors or fumes.

Preventation of Fire and Explosion: Keep from contact with oxidizing materials, alkalis and acids. Store away from heat, sunlight and moisture.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Oxidizing agents, alkali metals

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
7646-85-7	ZINC CHLORIDE	OSHA	350 mg/kg
		ACGIH	350 mg/kg
		NIOSH	No Established Limit
		Supplier	No Established Limit
N/A	WAX	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
64742-65-0	HEAVY PARAFFINIC PETROLEUM DISTILLATES	OSHA	5 mg/m3
		ACGIH	5 mg/m3
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
7646-85-7	ZINC CHLORIDE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
N/A	WAX	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
64742-65-0	HEAVY PARAFFINIC PETROLEUM DISTILLATES	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	If engineering controls do not maintain airborne concentrations to an acceptable level, a NIOSH approved respirator must be worn. Respirator Type: Organic vapor. If respirators are used, a program should be instituted to assure Compliance with OSHA Standard 29 CFR 1910.134.
Eyes	Safety glasses with side shields, goggles or face shield are recommended.
Skin	Wear overalls to keep skin contact to a minimum.
Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc. Recommended Decontamination Facilities: Eye bath, washing facilities.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Brownish paste
Odor	Slight
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	370 F/188 C
Flash Point	None
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 135C(275F): NA **Upper Explosive Limit:** 199C(390F): NA
Vapor pressure (Pa)	6 mmHg (at 70 F)
Vapor Density	Not Measured
Specific Gravity	> 2 (H20 = 1)
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	(ASTM D 2155): NA
Decomposition temperature	Not Measured
Viscosity (cSt)	25C/77F: NA
Volatiles (% by weight)	NA

Octanol/Water Partition Coefficient NA

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong Oxidizers

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
ZINC CHLORIDE (7646-85-7)	350 mg/kg (rat)	No data available	No data available	No data available	No data available
WAX (N/A)	No data available	No data available	No data available	No data available	No data available
HEAVY PARAFFINIC PETROLEUM DISTILLATES (64742-65-0)	> 5000 mg/kg , Rat	> 5000 mg/kg , Rabbit	>5 mg/l Rat	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable

Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
ZINC CHLORIDE (7646-85-7)	0.4 - 2.2 mg/l	0.2 mg/l	Not Available
WAX (N/A)	Not Available	Not Available	Not Available
HEAVY PARAFFINIC PETROLEUM DISTILLATES (64742-65-0)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	Not Regulated
US EPA Tier II Hazards	**Fire:** No
	Sudden Release of Pressure: No
	Reactive: No
	Immediate (Acute): No
	Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

ZINC CHLORIDE

EPCRA 313 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Zinc chloride

Pennsylvania RTK Substances (>1%):

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document

MATERIAL SAFETY DATA SHEET
Complies with OSHA Hazard Communication
And WHIMS Standard 29 CFR 1910-1200

Print Date: 04/29/03

Product Name: PERMA FLUX **Product Number: 15-115, 15-117**

I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: ComStar International Inc. **Tel:** 718-445-7900, 800-328-0142
Address: 20-45 128th Street, College Point, NY 11356 **Fax:** 718-353-5998

Chemical Name: Blended Formula
Synonym(s): None

II - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	OSHA PEL	ACGIH TLV	CAS NO.
ZINC CHLORIDE	350 mg/kg	350 mg/kg	7646-85-7
WAX	NOT LISTED	NOT LISTED	NO LISTING
HEAVY PARAFFINIC PETROLEUM DISTILLATES	5 mg/m3	5 mg/m3	64742650

III - HAZARDS IDENTIFICATION

HMIS Hazard Ratings: Health – 1, Flammability – 0, Chemical Reactivity – 0
NFPA Hazard Ratings: Health – 1, Flammability – 0, Chemical Reactivity – 0
NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

IV - FIRST-AID MEASURES

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Eyes: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
Skin: Remove contaminated clothing, wash affected skin with soap and water immediately. Get medical attention if symptoms occur.
Ingestion: Drink plenty of water. Get immediate medical attention.

V - FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, foam, water spray or CO2
Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.
Hazardous Combustion Products: Unknown
Unusual Fire and Exposure Hazards: May give off dark smoke while burning.

VI - ACCIDENTAL RELEASE MEASURES

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

VII - HANDLING AND STORAGE

Personal Precautionary Measures: Avoid contact with eyes and skin. Wash thoroughly after handling. Do not breathe vapors or fumes.
Prevention of Fire and Explosion: Keep from contact with oxidizing materials, alkalis and acids. Store away from heat, sunlight and moisture.

VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:
ACGIH Threshold Limit Value (TLV): see section II
OSHA (USA) Permissible Exposure Limit (PEL): see section II
Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, evaporation from large surfaces, spraying, heating, etc.
Respiratory Protection: If engineering controls do not maintain airborne concentrations to an acceptable level, a NIOSH approved respirator must be worn.
Respirator Type: Organic vapor. If respirators are used, a program should be instituted to assure Compliance with OSHA Standard 29 CFR 1910.134.
Eye Protection: Wear safety glasses with side shields (or goggles) and a face shield.
Skin Protection: It is a good industrial hygiene practice to minimize skin contact.
Recommended Decontamination Facilities: Eye bath, washing facilities

IX - PHYSICAL AND CHEMICAL PROPERTIES

Color: Amber
Odor: No odor
Odor Threshold: not available
Specific Gravity (H20 = 1): 0.8 – 0.9

Vapor Pressure at 70° F: Not Est.
Vapor Density (Air = 1): Not Est.
Evaporation Rate (n-butyl acetate = 1): N/A
Volatile Fraction by Weight: N/A
Boiling Point: N/A
Melting Point: 125 Deg. F
Viscosity at 25° C (77° F): N/A

Solubility in Water: No
Octanol / Water Partition Coefficient: not available
Flash Point: 380
Lower Explosive Limit 135° C (275° F): N/A
Upper Explosive Limit 199° C (390° F): N/A
Auto ignition Temperature (ASTM D 2155): N/A

X - STABILITY AND REACTIVITY

Stability: Product is considered stable.
Incompatibility: strong oxidizing agents, alkalis and acids
Hazardous Polymerization: will not occur

XI - TOXICOLOGICAL INFORMATION

Inhalation: Low hazard for usual industrial handling by trained personnel.
Eyes: Causes irritation.

Skin: Low hazard for usual industrial handling by trained personnel, see label warnings.
Ingestion: Not considered to be toxic.
Acute Toxicity Data:
Oral LD-50 (rabbit): not available
Inhalation LC-50: not available

XII - ECOLOGICAL INFORMATION

Introduction: Leaks should be stopped. Spills should be contained and cleaned up immediately. Large liquid spills should be removed by using a vacuum truck. Solid spills should be scooped up and placed in approved containers for disposal. The spill area should then be flushed with water followed by liberal covering of sodium bicarbonate. All clean-up material should be removed and placed in approved containers, labeled and stored in a safe place to await proper treatment or disposal. Spills on areas other than pavement, e.g., dirt or sand, may be handled by removing the affected soils and placing in approved containers. Persons performing clean-up work should wear adequate personal protective equipment and clothing. Spills or releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

XIII - DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Check with state and local officials before disposal.

XIV - TRANSPORT INFORMATION

DOT (USA) Status: not regulated
TDG (Canada) Status: not regulated
Air – International Civil Aviation Organization (ICAO)
ICAO Status: Check with air freight forwarder for ruling.
Sea – International Maritime Dangerous Goods (IMDG)
IMDG Status: not regulated

XV - REGULATORY INFORMATION

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 910.1200.
OSHA hazardous chemical(s): trade secret (blended formula).
Material(s) known to the State of California to cause cancer: none
Material(s) known to the State of California to cause adverse reproductive effects: none
Massachusetts Substance List: none.
New Jersey Workplace Hazardous Substance List: none
Pennsylvania Hazardous Substance List: none

This document has been prepared in accordance with the MSDS requirements of the WHMIS Controlled Products Regulation.
WHMIS (Canada) Ingredient Disclosure List: trade secret (blended formula).
WHMIS (Canada) Status: not listed.
WHMIS (Canada) controlled material(s): not listed.
WHMIS (Canada) Hazard Classification: not classified.

Carcinogenicity Classification (components present at 0.1% or more): None

International Agency for Research on Cancer (IARC): Not listed
American Conference of Governmental Industrial Hygienist (ACGIH): Not listed
National Toxicology Program (NTP): not listed
Occupational Safety and Health Administration (OSHA): Not listed

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: None.

SARA (U.S.A.) Sections 311 and 312 hazard classification(s): Not listed.

NOTE: *The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Material Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.*