



Safety Data Sheet

Issuing Date: January 31, 2015

Revision Date: June 16, 2015

Revision Number: 1

1. Identification of the Substance/Preparation and the Company Undertaking

GHS Product Identifier

Product Name Nuclear High Purity Marker - Black

Other Means of Identification

Part Number 44404

Colors: Black

Formula Code Alcohol Base Marker

Synonyms none

Recommended use of the chemical and restrictions on use

Recommended Use Marker

Uses Advised Against No information available

Supplier's Details

Supplier Address

SKM Industries Inc.
1012 Underwood Road
Olyphant, Pa 18447
Telephone: 570-383-3062

Emergency Telephone Number

Chemtrec US 800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communications Standard 2012 (29 CFR 1910.1200)

Flammable Liquid Category 3

Acute Toxicity Oral Category 4

Acute Toxicity Dermal Category 4

Causes serious eye damage/irritation Category 2A

Specific target organ toxicity – single exposure- Category 3- respiratory

Reproductive Toxicity (Category 1B)- M-Pyrol

GHS Label Elements, including precautionary statements

Emergency Overview

Signal Word – Danger

Hazard Statements –

Flammable liquid and vapour

Harmful if swallowed
Harmful in contact with skin
Causes serious eye damage
May cause respiratory irritation
May cause drowsiness or dizziness
May damage fertility or the unborn



Appearance – Opaque, varies
Physical state- Thin viscosity liquid
Odor – Alcohol Odor

Precautionary Statements

Prevention

Keep away from heat, sparks, open flame, hot surfaces
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion proof electrical/ventilating/lighting equipment
Use only non-sparking tools
Take precautionary measure to avoid static discharge
Wear protective gloves/clothing/eye protection/face protection
Wash face and hands and any exposed skin thoroughly after handling
Do not eat drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapor/spray
Use only outdoors or in a well ventilated area
Do not handle until all safety precautions have been read and understood
Use personal protection as required

General Advice

If exposed or concerned: get medical attention/advice

ACUTE HAZARD: At high concentration, dizziness and unconsciousness may occur.

CAUTION: Harmful if swallowed. Direct contact may cause skin or eye irritation.

KEEP OUT OF REACH OF CHILDREN.

M-Pyrol is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REAC)

Eyes

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation persists: get medical attention/advice.

Skin

If on Skin: wash with plenty of water. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse.

Inhalation

If inhaled: Remove person to fresh air and keep at rest in a comfortable position for breathing. Call a poison center/doctor if you feel unwell.

Ingestion

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth with water.

Fire

In case of fire use CO₂, dry chemical, foam, or water spray

Spills and Leaks

Contain and collect spillage

Storage

Store in dry well ventilated place. Keep cool. Keep container tightly closed. Prevent unauthorized access. Store locked up.

Disposal

Dispose of contents/container in approved waste disposal plant or in accordance with local/regional regulations

Hazard not Otherwise Classified (HNOC)

Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS -No	Weight %	Trade Secret
Diacetone Alcohol	123-42-2	50-60	*
Propylene Glycol Monomethyl Ether	107-98-2	25-35	*
C.I. Solvent Black 7	8005-02-5	5-15	*
M-Pyrol	872-50-4	1-10	

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

4. FIRST AID MEASURES**Description of necessary first-aid measures**

General Advice	In case of doubt, or when symptoms persist, seek medical attention.
Eye Contact	Immediately flush eyes with plenty of water for at least fifteen (15) minutes. Get medical attention immediately.
Skin Contact	Flush skin with plenty of water. Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleanser.
Inhalation:	Remove to fresh air, keep patient warm and at rest. If breathing is irregular seek medical advice. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.
Ingestion	Seek medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Protection of First Aiders Use personal protection equipment.**Most important symptoms/effects, acute and delayed****Most important symptoms/effects** No information available**Indication of immediate medical attention and special treatment needed, if necessary****Note to physician** Treat symptomatically**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Dry chemical, carbon dioxide, alcohol resistant foam.

Unsuitable extinguishing media Avoid water in straight stream, it will scatter and spread fire

Specific Hazards arising from the chemical Flammable. Keep product away from heat and sources of ignition. Risk of ignition.

These pens contains between 10-14 ml of liquid. The liquid contents are only released in a controlled manner when the tip of the pen is pressed. No free liquid is present under normal conditions of use. This product presents only a minimal fire and exposure hazard.

Flash Point: 89° F (TCC) ASTM D56
Flammability Limits (% by volume): LEL 2.1 UEL 13.7

Protective Equipment and Precautions for Firefighters

Wear appropriate self-contained breathing apparatus MSHA/NIOSH (approved or equivalent) and full protective gear. Cool closed containers exposed to fire with water spray. Avoid inhalation of material or combustion by-products; stay upwind.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid breathing vapours. Evacuate personnel to safe areas. Ensure adequate ventilation.

Environmental Precautions Avoid release into the environment. Do not allow to enter drains or watercourses.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Contain the spillage with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth to soak up the product and place in a suitable container for disposal in accordance with the waste regulations

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Avoid skin and eye contact. Avoid the inhalation of vapor and mist. Keep away from ignition source.

Conditions for safe storage, including any incompatibilities

Storage Keep away for open flame, hot surfaces and sources of ignition. Keep containers tightly closed. Observe label precautions. Store between 5-25° C in a dry, well ventilated place. Prevent unauthorized access. Replace cap on pen when not in use.

Incompatible products Strong oxidizing agents, strong acids, strong reducing agents, strong alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

Ingredient	CAS No.	OSHA PEL	ACGIH-TLV
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Diacetone Alcohol	123-42-2	TWA 50 ppm	TWA 50 ppm
Propylene Glycol-Monomethyl Ether	107-98-2	TWA 100 ppm	TWA 100 ppm
C.I. Solvent Black	8005-02-5	No Data	No Data
M-Pyrol	872-50-4	TWA 10 ppm	No Data

Appropriate engineering controls

Engineering Measures Showers, eyewash stations, ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face protection None under normal use conditions

Skin and body Protection None under normal use conditions

Respiratory Protection None under normal use conditions. If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

Hygiene Measures Use in a well-ventilated area. When using do not eat, drink, or smoke. Provide regular cleaning of equipment, work areas and clothing. Handle in accordance with good industrial hygiene and safety practices. Wash hands after use, before breaks and at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<u>Property</u>	<u>Value</u>
Boiling Point:	207°
Specific Gravity (H ₂ O=1) @70°F:	<1 @70°
Vapor Pressure (mm-Hg @ 70°F):	20.8 mm Hg@70°
Melting Point:	No Data
Vapor Density (AIR = 1):	2.1
Evaporation Rate (Butyl Acetate = 1):	1.3
Solubility in Water:	70-80%
PH:	No Data
VOC Content:	83.95%
VOC:	815 g/L
Appearance and Odor:	Black, thin viscosity liquid with alcohol odor.

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical Stability	Stable under normal storage and handling conditions
Possibility of Hazardous reactions	None under normal use
Hazardous Polymerization	Will not occur
Conditions to Avoid	Heat, open flame, sparks, and sources of ignition
Incompatible Materials	Strong oxidizers
Hazardous Decomposition -products	Carbon dioxide, carbon monoxide, smoke, soot and various oxidation by-products.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information None available. There is no data available on the product itself.

Name	LD50 Oral	LD50 Dermal	LC50 inhalation
Diacetone Alcohol	4 g/kg rat	13550 mg/kg rabbit	--
Propylene Glycol-Monomethyl Ether	5200 mg/kg rat	13000 mg/kg rabbit	>24 mg/L rat 1 hr 54.6 mg/L rat 4 hr
M-Pyrol	3598 mg/kg	2500 mg/kg rat >5000 mg/kg rabbit	3.1 mg/L rat 4 hr

12. ECOLOGICAL INFORMATION

Ecotoxicity There is no data available on the product itself

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable local, state and federal regulations. The liquid contents of the pen meet the definition of hazardous waste under RCRA, D001 (ignitable).

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT

DOMESTIC HIGHWAY (Containers < 1 Quart are ORM-D)

PROPER SHIPPING NAME: Consumer Commodity

HAZARD CLASS/SUBSIDIARY HAZARD: ORM-D

UN.NA NO. None

PACKING GROUP: None

LABEL REQUIRED: ORM-D

15. REGULATORY INFORMATION

TSCA INVENTORY: The product on this SDS is not listed on the Toxic Substances Control Act Inventory. All ingredients used to manufacture this product are listed on the TSCA Inventory U.S.

FEDERAL REGULATIONS:

CARCINOGENICITY: NTP: No IARC Monographs: No OSHA Regulations: No

OSHA: Hazardous by definition of Hazard Communications Standard (29 CFR 1910.1200)

SARA SECTION 313 REPORTING REQUIREMENTS: This product Contains M-Pyrol CAS No 872-50-4

SARA 313 threshold value=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

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: Not WHMIS controlled (pens) Bulk: Class B2, D2A

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65: This Product contains M-Pyrol CAS No 872-50-4 listed under California's Proposition 65 to cause birth defects or other reproductive harm.

US State Right to Know Regulations

Component	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Diacetone Alcohol	x	x	x		x
Propylene Glycol-Monomethyl Ether	x	x	x		x
M-Pyrol	x	x	x		

16. OTHER INFORMATION

Health Hazard 2

Flammability 3

Reactivity 0

Personal Protection B

SKM has been advised by attorney that the OSHA Hazard Communication Standard does not apply to the SKM products listed in this SDS. The explanation for the exemption is contained in 29 CFR 1910.1200(b)(6)(ix) as amended July 1, 2002 per the code of Federal Regulations. This information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the Hazard Communication Standard covers the product nor is this SDS meant to comply with all requirements of the Hazard Communication Standard. This information provided in the Material Safety Data Sheet has been compiled from our experience and data with similar commercially available materials and is believed to be accurate. No guarantee of accuracy is made. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and disposal procedures

End of Safety Data Sheet