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This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

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

GHS product identifier

Product Name Tuff Guy/Action Marker HD All colors

Other means of identification

Part Number Black (44203), Blue (44179), Green (44177), Red (44819), White (44175), Yellow (44401)

Formula Code W203 (Black), W179 (Blue), W177 (Green), Y819 (Red), W175 (White), Z401 (Yellow)

UN-Number UN1263

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Solvent based marker

Uses advised against No information available

Supplier's details

Initial Supplier
ITW Permatex Canada
1-35 Brownridge Road
Halton Hills, ON, L7G 0C6
Canada

Supplier Address
ITW PRO BRANDS
805 E. Old 56 Highway
Olathe, KS 66061
TEL: 1-800-443-9536

Emergency telephone number

Emergency Telephone Number 800-535-5053 Infotrac

2. HAZARDS IDENTIFICATION

Classification

This product is considered hazardous according to the criteria set within the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

Acute Oral Toxicity	Category 4
Acute Inhalation Toxicity - Vapors	Category 4

Acute Inhalation Toxicity - Dusts and Mists	Category 4
Serious Eye Damage/Eye Irritation	Category 2
Carcinogenicity	Category 2
Specific Target Organ Systemic Toxicity (Single Exposure)	Category 3
Flammable liquids	Category 2

Label Elements

Danger



Hazard Statements

Harmful if swallowed
Harmful if inhaled
Causes serious eye irritation
Suspected of causing cancer
May cause respiratory irritation
Highly flammable liquid and vapor.

Physical and Health Hazards Not Otherwise Classified

Not applicable.

Precautionary Statements

Prevention

- Avoid breathing dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Wear eye/face protection.
- 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.
- Keep cool.

General Advice

- If exposed or concerned: Get medical attention/advice

Eyes

- 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.

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Ingestion

- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.

Fire

- In case of fire: Use CO₂, dry chemical, or foam for extinction.

Spills and Leaks

- None

Storage

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

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Other information

45.739% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Methyl isobutyl ketone	108-10-1	67.93	-	-
Cyclohexanone	108-94-1	26.7	-	-
Titanium dioxide	13463-67-7	4.85	-	-
Carbon black	1333-86-4	3.14	-	-

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

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. If symptoms persist, call a physician.

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 skin with soap and water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician. If breathing is difficult, give oxygen.

Ingestion

Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Consult a physician if necessary.

Protection of First-aiders

Use personal protective equipment. Remove all sources of ignition.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects Eye irritation/reactions.

Indication of immediate medical attention and special treatment needed, if necessary**Notes to Physician**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable Extinguishing Media Water.

Specific Hazards Arising from the Chemical Flammable. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion Data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

Yes.

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

Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Stop leak if you can do it without risk. Take precautionary measures against static discharges. Pay attention to flashback. All equipment used when handling the product must be grounded.

Environmental Precautions

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

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

Ground and bond containers when transferring material. Small spillage: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Large spillage: Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. Ensure adequate ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Conditions for safe storage, including any incompatibilities

Storage

Keep away from open flames, hot surfaces and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children. Keep container closed when not in use. Keep away from incompatible materials.

Incompatible Products

Strong oxidizing agents. Strong acids. Strong reducing agents. Strong alkalis.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl isobutyl ketone	STEL: 75 ppm	TWA: 100 ppm	IDLH: 500 ppm

108-10-1	TWA: 20 ppm	TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³
Cyclohexanone 108-94-1	STEL: 50 ppm TWA: 20 ppm S*	TWA: 50 ppm TWA: 200 mg/m ³ (vacated) TWA: 25 ppm (vacated) TWA: 100 mg/m ³ (vacated) S*	IDLH: 700 ppm TWA: 25 ppm TWA: 100 mg/m ³
Titanium dioxide 13463-67-7	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust	IDLH: 5000 mg/m ³
Carbon black 1333-86-4	TWA: 3 mg/m ³ inhalable particulate matter	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

Immediately Dangerous to Life or Health. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH:

Other Exposure Guidelines

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

Appropriate engineering controls**Engineering Measures**

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Goggles. If splashes are likely to occur, wear: Chemical splash goggles.

Skin and Body Protection

Risk of contact: Chemical resistant gloves. Apron. Boots.

Respiratory Protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Physical State**

Liquid.

Appearance

Varies, Thin viscosity,

Odor

Pungent, Mild.

Odor Threshold

No information available.

Property**Values****Remarks/ - Method**

pH

No data available

None known

Melting Point/Range

No data available

None known

Boiling Point/Boiling Range

117.22 °C / 243 °F

None known

Flash Point

15.56 °C / 60 °F

Tag closed cup

Evaporation rate

1.6 (BuAc = 1)

None known

Flammability (solid, gas)

No data available

None known

Flammability Limits in Air

upper flammability limit

No data available 8

lower flammability limit

No data available 1.2

Vapor Pressure

No data available

None known

Vapor Density

> 1 (air = 1)

None known

Specific Gravity

No data available

None known

Water Solubility

Moderate

None known

Solubility in other solvents

No data available

None known

Partition coefficient: n-octanol/water

No data available

None known

Autoignition Temperature

No data available

None known

Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Flammable Properties	Flammable liquid. HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.	
Explosive Properties	No data available	
Oxidizing Properties	No data available	

Other information

VOC Content (%)	W203 Black: 85.99% W178 Blue: 87.24% W177 Green: 86.51% Y819 Red: 88.77% W175 White: 86.1% Z401 Yellow: 89.03%
VOC (g/l)	W203 Black: 757 g/L W178 Blue: 762 g/L W177 Green: 761 g/L Y819 Red: 796 g/L W175 White: 757 g/L Z401 Yellow: 778 g/L

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	No data available.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	None under normal processing.
<u>Hazardous Polymerization</u>	Hazardous polymerization does not occur.
<u>Conditions to avoid</u>	Heat, flames and sparks. Incompatible products.
<u>Incompatible materials</u>	Strong oxidizing agents. Strong acids. Strong reducing agents. Strong alkalis.
<u>Hazardous decomposition products</u>	Carbon oxides. Smoke Soot.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Harmful if inhaled. May cause irritation of respiratory tract.
Eye Contact	Causes serious eye irritation.
Skin Contact	May be harmful in contact with skin.
Ingestion	Harmful if swallowed.

Numerical measures of toxicity - Product

Unknown acute toxicity 45.739% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	1502 mg/kg; Acute toxicity estimate
LD50 Dermal	3371 mg/kg; Acute toxicity estimate
Inhalation	
dust/mist	1.57 mg/L; Acute toxicity estimate
Vapor	16.06 mg/L; Acute toxicity estimate

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl isobutyl ketone	= 2080 mg/kg (Rat)	> 16000 mg/kg (Rabbit)	= 8.2 mg/L (Rat) 4 h
Cyclohexanone	= 1544 mg/kg (Rat)	= 947 mg/kg (Rabbit)	= 8000 ppm (Rat) 4 h

Titanium dioxide	> 10000 mg/kg (Rat)	-	-
Carbon black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

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

Respiratory or Skin Sensitization No information available.
Germ Cell Mutagenicity No information available.
Carcinogenicity May cause cancer. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Methyl isobutyl ketone	A3	Group 2B		X
Cyclohexanone	A3	Group 3		
Titanium dioxide		Group 2B	-	-
Carbon black	A3	Group 2B	-	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to its Carcinogenicity to Humans

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic Toxicity Avoid repeated exposure. Possible risks of irreversible effects.
Target Organ Effects Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system (CNS). Lungs. Lymphatic system.
Aspiration Hazard No information available.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methyl isobutyl ketone 108-10-1	EC50 96 h: = 400 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 496 - 514 mg/L flow-through (Pimephales promelas)	EC50 = 79.6 mg/L 5 min	EC50 48 h: = 170 mg/L (Daphnia magna)
Cyclohexanone 108-94-1	EC50 96 h: = 20 mg/L (Chlorella vulgaris)	LC50 96 h: 481 - 578 mg/L flow-through (Pimephales promelas) LC50 96 h: = 8.9 mg/L (Pimephales promelas)	EC50 = 18.5 mg/L 5 min EC50 = 21.3 mg/L 10 min EC50 = 25 mg/L 5 min	EC50 24 h: = 800 mg/L (Daphnia magna)
Carbon black 1333-86-4				EC50 24 h: > 5600 mg/L (Daphnia magna)

Persistence and Degradability No information available.

Bioaccumulation

Chemical Name	Log Pow
Methyl isobutyl ketone	1.19
Cyclohexanone	0.86

Mobility No information available.

Other Adverse Effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local/regional/national regulations.

Contaminated Packaging Do not re-use empty containers.

US EPA Waste Number U057
U161

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl isobutyl ketone - 108-10-1		Included in waste stream: F039		U161
Cyclohexanone - 108-94-1		Included in waste stream: F039		U057

14. TRANSPORT INFORMATION

DOT

UN-Number UN1263
Proper shipping name Paint
Hazard Class 3
Packing Group II
Description UN1263, Paint, 3, II
Emergency Response Guide Number 128

TDG

UN-Number UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
Description UN1263, Paint, 3, II

MEX

UN-Number UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
Description UN1263, Paint, 3, II

IATA

UN-Number UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
ERG Code 3L
Description UN1263, Paint, 3, II

IMDG/IMO

UN-Number UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
EmS No. F-E, S-E
Description UN1263, Paint, 3, II, (15.56°C c.c.)

15. REGULATORY INFORMATION

International Regulations

Ozone depleting substances Not applicable

Persistent Organic Pollutants Not applicable

Hazardous Waste

Chemical Name	Basel Convention (Hazardous Wastes)
Methyl isobutyl ketone	Y42

The Rotterdam Convention (Prior Informed Consent) Not applicable

International Convention for the Prevention of Pollution from Ships (MARPOL) Not applicable

International Inventories

TSCA Not determined

DSL Not determined

Legend

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

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

U.S. Federal Regulations

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 %
Methyl isobutyl ketone	108-10-1	67.93	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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methyl isobutyl ketone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Cyclohexanone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Methyl isobutyl ketone	108-10-1	Carcinogen Developmental
Titanium dioxide	13463-67-7	Carcinogen
Carbon black	1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Methyl isobutyl ketone	X	X	X	X	X
Cyclohexanone	X	X	X	X	X
Titanium dioxide	X	X	X		X
Carbon black	X	X	X	X	X
Methyl ethyl ketone	X	X	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA Health Hazard 2 Flammability 3 Instability 0 Physical and Chemical Hazards -

HMIS Health Hazard 2* Flammability 3 Physical Hazard 0 Personal Protection X

*Indicates a chronic health hazard.

Prepared By Product Stewardship
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General 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