



# SAFETY DATA SHEET

Issuing Date 16-Sep-2014

Revision Date 16-Sep-2014

Revision Number 0

## 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

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

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

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal Word</b>	<b>Danger</b>
<b>Hazard Statements</b>	
<ul style="list-style-type: none"> <li>• Harmful if swallowed</li> <li>• Harmful if inhaled</li> <li>• Causes serious eye irritation</li> <li>• Suspected of causing cancer</li> <li>• May cause respiratory irritation</li> <li>•</li> <li>• Highly flammable liquid and vapor.</li> </ul>	
	
<b>Appearance</b> Varies, Thin viscosity,	<b>Physical State</b> Liquid.
	<b>Odor</b> Pungent, Mild

**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.

**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.

**Hazard Not Otherwise Classified (HNOC)**

Not applicable

**Other information**

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Methyl isobutyl ketone	108-10-1	40-70	*
Cyclohexanone	108-94-1	10-30	*
Titanium dioxide	13463-67-7	1-5	*
Carbon black	1333-86-4	1-5	*

*\*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**

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** No information available.

**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 (CO<sub>2</sub>). 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.

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** 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 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m <sup>3</sup> (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m <sup>3</sup> (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m <sup>3</sup>	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m <sup>3</sup> STEL: 75 ppm STEL: 300 mg/m <sup>3</sup>

Cyclohexanone 108-94-1	STEL: 50 ppm TWA: 20 ppm S*	TWA: 50 ppm TWA: 200 mg/m <sup>3</sup> (vacated) TWA: 25 ppm (vacated) TWA: 100 mg/m <sup>3</sup> (vacated) S*	IDLH: 700 ppm TWA: 25 ppm TWA: 100 mg/m <sup>3</sup>
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 10 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup>
Carbon black 1333-86-4	TWA: 3.5 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>	IDLH: 1750 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> 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** Safety glasses with side-shields. 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

<b>Physical State</b>	Liquid	<b>Appearance</b>	Varies Thin viscosity,
<b>Odor</b>	Pungent, Mild	<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
<b>pH</b>	No data available	None known
<b>Melting Point/Range</b>	No data available	None known
<b>Boiling Point/Boiling Range</b>	117.22 °C / 243 °F	None known
<b>Flash Point</b>	15.56 °C / 60 °F	Tag closed cup
<b>Evaporation rate</b>	1.6 (BuAc = 1)	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
upper flammability limit	No data available 8	
lower flammability limit	No data available 1.2	
<b>Vapor Pressure</b>	No data available	None known
<b>Vapor Density</b>	> 1 (air = 1)	None known
<b>Specific Gravity</b>	No data available.	None known
<b>Water Solubility</b>	Moderate	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition Temperature</b>	No data available	None known
<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	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

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Heat, flames and sparks. Incompatible products.

**Incompatible materials**

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

**Hazardous decomposition products**

Carbon oxides. Smoke Soot.

## 11. TOXICOLOGICAL INFORMATION

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

<b>Inhalation</b>	Harmful if inhaled. May cause irritation of respiratory tract.
<b>Eye Contact</b>	Irritating to eyes. Causes serious eye irritation.
<b>Skin Contact</b>	May be harmful in contact with skin.
<b>Ingestion</b>	Harmful if swallowed.

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	= 800 mg/kg ( Rat )	= 948 mg/kg ( Rabbit )	= 10.7 mg/L ( Rat ) 4 h = 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**

**Sensitization** No information available.

**Mutagenic Effects** 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**

Carbon black has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

**Target Organ Effects**

Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system (CNS). Lungs. Lymphatic system.

**Aspiration Hazard** No information available.

**Numerical measures of toxicity - Product**

**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

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

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

**Other Adverse Effects**

No information available.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Methods** Dispose of in accordance with federal, state, and local 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

**ICAO**

**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.)

**RID**

UN-Number UN1263  
 Proper Shipping Name Paint  
 Hazard Class 3  
 Packing Group II  
 Classification Code F1  
 Description UN1263, Paint, 3, II

**ADR**

UN-Number UN1263  
 Proper Shipping Name Paint  
 Hazard Class 3  
 Packing Group II  
 Classification Code F1  
 Tunnel Restriction Code (D/E)  
 Description UN1263, Paint, 3, II, (D/E)

**ADN**

Proper Shipping Name Paint  
 Hazard Class 3  
 Packing Group II  
 Classification Code F1  
 Special Provisions 163, 640C, 650  
 Description UN1263, Paint, 3, II  
 Limited Quantity 5 L  
 Ventilation VE01

<b>15. REGULATORY INFORMATION</b>
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**International Inventories****Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - 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	40-70	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
Titanium dioxide	13463-67-7	Carcinogen
Carbon black	1333-86-4	Carcinogen

**U.S. State Right-to-Know Regulations**

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
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**

<b>NFPA</b>	Health Hazard 2	Flammability 3	Instability 0	Physical and Chemical Hazards -
<b>HMIS</b>	Health Hazard 2*	Flammability 3	Physical Hazard 0	Personal Protection X

\*Indicates a chronic health hazard.

**Prepared By** Product Stewardship  
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1-800-572-6501

**Issuing Date** 16-Sep-2014  
**Revision Date** 16-Sep-2014  
**Revision Note** Initial Release.

**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**