

**From:** [Driscoll, Keith J NFG \(USA\)](#)  
**To:** [Downing, Jane](#)  
**Cc:** [leonard.pinaud@state.ma.us](#); [Wilkin, Rick](#); [Springborg, Denise](#); [Su, Chunming](#); [Traviglia, Andrea](#); [Baganha, Paulo A CW3 USARMY NG MAARNG \(USA\)](#); [Belaval, Marcel](#); [Jacobs, Kira](#)  
**Subject:** FW: Midas user guide  
**Date:** Thursday, June 23, 2022 3:50:52 PM  
**Attachments:** [midas.PNG](#)

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Hello all-

Please find the attached conversations with the U.S. Army Joint Munitions Command in regard to the MIDAS data sheets. Hopefully we captured all of the questions that resulted from our initial MIDAS data sheet Teams call.

If we missed anything or if you have any further questions please let me know.

Keith

-----Original Message-----

From: Baganha, Paulo A CW3 USARMY NG MAARNG (USA) <[paulo.a.baganha.mil@army.mil](mailto:paulo.a.baganha.mil@army.mil)>  
Sent: Thursday, June 23, 2022 1:46 PM  
To: Driscoll, Keith J NFG (USA) <[keith.j.driscoll.nfg@army.mil](mailto:keith.j.driscoll.nfg@army.mil)>  
Subject: FW: Midas user guide

Below is the additional information that I received regarding the MIDAS data. I think it is enough to send to the EPA.

Paulo

-----Original Message-----

From: Barton, Scott A CIV USARMY JMC (USA) <[scott.a.barton.civ@army.mil](mailto:scott.a.barton.civ@army.mil)>  
Sent: Wednesday, June 22, 2022 12:56 PM  
To: Baganha, Paulo A CW3 USARMY NG MAARNG (USA) <[paulo.a.baganha.mil@army.mil](mailto:paulo.a.baganha.mil@army.mil)>  
Cc: Daniel, Ruthann CIV USARMY JMC (USA) <[ruthann.daniel.civ@army.mil](mailto:ruthann.daniel.civ@army.mil)>  
Subject: FW: Midas user guide

Mr. Baganha,

In response to your questions, here is some additional clarification:

1 and 2 are simple. 3 is more complicated. It is combination of what is needed to calculate the weight of an item and what MIDAS munition characterizers and users needed/wanted to see over the last 20 years.

1. PR - A "P" would be in this column if the item was proprietary 2. SAO - Is the MIDAS munitions family assigned to the item, Family code definitions can

be viewed on the website from the MIDAS Products-MIDAS Families menu. SAO is Small caliber ammunition other than .50 caliber.

3. Reported Weight - The reported weight and unit columns in reports is designed to show the individual item weights as the data is entered into the

MIDAS system. These weights are either directly entered or inherited because of the hierarchical structure of the item. The Reported weights column cannot be added together directly to get the item weight because it would cause double counting due to displaying inherited data, alternates would have to be calculated, and item factors would need to be applied to get the correct multipliers. That is why Alternate, Factor, Calc Factor, and contributed weight are included. MIDAS algorithms know how to handle all the scenarios of what to use to build the calculated weight of an item (e.g., Contributed weight column in this report). Contributed weights are reported at the Part

Material and Bulk Material item levels.

For type M (Munition), the weight and unit entered by the MIDAS munitions characterizer. For type C (Component), the weight and unit entered by the MIDAS munitions characterizer. For type P (Part), it is a little different. The variation of the Part, shaped vs unshaped, has an affect on whether the part gets a weight displayed or not. Shaped parts will not have a reported weight next to them because they are the same all the time and the part weight is a sum of the part material that part is made of plus the weight of any bulk materials on that part (which is reported at the mtl and bulk items). Unshaped parts get a weight because the reported weight is determined by the usage of that part. Unshaped parts can

have different weights in different munitions. For type Mtl (Part material), the weight and unit entered by the characterizer. For type B (Bulk Material), the weight and unit entered by the characterizer. And for type Cmpd, the weight is the percentage of the compound times the weight of the part material or bulk material parent.

Hope this additional information provides the clarification that you need.

V/R,

Scott

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SIPR Email: scott.a.barton.civ@mail.smil.mil

Work iPhone: 918-916-7690 (Teleworking on AWS: M-TH and M-F)

-----Original Message-----

From: Baganha, Paulo A CW3 USARMY NG MAARNG (USA)  
<paulo.a.baganha.mil@army.mil>  
Sent: Wednesday, June 22, 2022 8:18 AM  
To: Barton, Scott A CIV USARMY JMC (USA) <scott.a.barton.civ@army.mil>  
Cc: Daniel, Ruthann CIV USARMY JMC (USA) <ruthann.daniel.civ@army.mil>  
Subject: FW: Midas user guide

Good morning Scott,

Thank you for all the information you provided Blake Williams last week. I do have a couple more questions regarding the MIDAS data sheet.

1. What does PR stand for?
2. What is SAO under Family?
3. Under Reported Weight, there are some items that have no value. Why is that?

Lastly, would you be able to send me an older version of the User Guide? I know that it's currently being updated, but I think any version that explains how to read the MIDAS data sheet would be beneficial and answer many of the questions the EPA has asked us. Please let me know if you have any questions.

Thank you,  
Paulo

Regards,

Mr. Paulo A. Baganha  
Environmental Program Manager

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Hanscom AFB, MA 01731  
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Cell: 508-958-2709

-----Original Message-----

From: Williams, Blake CIV NG MAARNG (USA) <blake.williams11.civ@army.mil>  
Sent: Tuesday, June 14, 2022 2:32 PM  
To: McDonough, Alexander VINCENT (Alex) MAJ USARMY NG MAARNG (USA) <alexander.v.mcdonough.mil@army.mil>; Baganha, Paulo A CW3 USARMY NG MAARNG (USA) <paulo.a.baganha.mil@army.mil>; Ciaranca, Michael A NFG NG MAARNG (USA) <michael.a.ciaranca.nfg@army.mil>; Kelly, Emily D NFG NG MAARNG (USA) <emily.d.kelly2.nfg@army.mil>

Subject: FW: Midas user guide

All please see the explanation for midas sheets.

v/r

Mr. Blake Williams  
GS, DOL Manager  
Camp Edwards Trng Site  
339-202-9314 or 508-889-4545

-----Original Message-----

From: Barton, Scott A CIV USARMY JMC (USA) <scott.a.barton.civ@army.mil>  
Sent: Tuesday, June 14, 2022 12:18 PM  
To: Williams, Blake CIV NG MAARNG (USA) <blake.williams11.civ@army.mil>  
Cc: Daniel, Ruthann CIV USARMY JMC (USA) <ruthann.daniel.civ@army.mil>;  
Price, Holly E CIV USARMY JMC (USA) <holly.e.price.civ@army.mil>  
Subject: RE: Midas user guide

Good Morning Mr. Williams,

We are currently updating the MIDAS User Guide - our apologies for the temporary broken link.

From your highlighted Snip, here is some additional information:

- Type: M - Munition  
C - Component  
P - Part  
Mtl - Part Material  
B - Bulk Material  
Cmpd - Compound
  
- Mat. Code - Only on Parts, Materials, and Compounds: I - Inert, X - PEP, C - Chemical, R - Radioactive.
  
- Reported Weight - The weight specified by the technical drawing or weight estimation entered by the munitions characterizer.
  
- Unit - is the unit the reported weight is entered in (LB- pounds, OZ - ounces, GM - grams, MG - milligrams, GR - grains, KG - Kilograms, TN - Tons). NOTE: Weights are converted to lbs for calculations.
  
- Factor is the number of times this item exists in its parent.
  
- Calc. Factor is the number of times this item exists in this branch of the item structure (e.g., multiplies factors out from parent, parent parents, all the way up to the top)
  
- Contributed weight - MIDAS stores weights at many levels, but only specific types of items are valid in calculating the calculated weight of an item. Only items that are used in the weight calculation have values in this column.
  
- Specification - SPEC - MIL SPEC from the tech drawing assigned at the time of munition item characterization.

- Rev - Is the MIL SPEC revision assigned at the time of munition item characterization.

- TGCS - are the //TYPE//GRADE//CLASS//STYLE identifiers rolled up into one column to save space.

Hope this additional information helps for your upcoming EPA meeting.

If you need any additional information, please feel free to reach out to us.

V/R,

Scott

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Work iPhone: 918-916-7690 (Teleworking on AWS: M-TH and M-F)

-----Original Message-----

From: Williams, Blake CIV NG MAARNG (USA) <[blake.williams11.civ@army.mil](mailto:blake.williams11.civ@army.mil)>  
Sent: Tuesday, June 14, 2022 8:24 AM  
To: Barton, Scott A CIV USARMY JMC (USA) <[scott.a.barton.civ@army.mil](mailto:scott.a.barton.civ@army.mil)>;  
Daniel, Ruthann CIV USARMY JMC (USA) <[ruthann.daniel.civ@army.mil](mailto:ruthann.daniel.civ@army.mil)>  
Subject: Midas user guide

Good Morning,

I was trying to get the user guide from the help drop down to get some information for the detailed structure report abbreviations. The link on the website is coming up as invalid when you try to use it. I have attached a Snip of the info we are trying to get for our upcoming EPA meeting regarding use of some new DODICS and we want to have all of the prevalent information.

v/r

Mr. Blake Williams

GS, DOL Manager

Camp Edwards Trng Site

339-202-9314 or 508-889-4545

## JMC - MIDAS Detailed Structure For An Item

Type: M	Draw No: 13020533	Rev: F	Version: 1	Family: SAO	Reported Weight: 190.000000	Unit: GR
Nomenclature: CTG 5.56MM BALL M855A1					Reported Weight (lbs): 0.027143	
NSN: 1305015964436-AB74					Calculated Weight (lbs): 0.026631	98.11 %
Status: COMPLETE						

Drawing #	Rev	Ver	P R	Std./ Alt.	Nomenclature (Material)	Type	Mat. Code	Reported Weight	Unit	Factor	Calc. Factor	Contributed Weight (Lb)	Specification	Rev	TGCS
13020533	F	1		STD	CTG 5.56MM BALL M855A1	M		190.000000	GR	1	1				
13020534	D	1		STD	BULLET ASSY M85A1	C		62.000000	GR	1	1				
13020535	C	1		STD	JACKET	P	I			1	1				
		1		STD	BRASS	Mtl	I	18.700000	GR	1	1	0.002671	ASTM-B36	B	//220///
		1		STD	COPPER (7440-50-8) (90%)	Cmpd	I	16.830000	GR	1	1				
		1		STD	ZINC (7440-66-6) (9.9%)	Cmpd	I	1.851300	GR	1	1				