

Organic Inventory	Mission Name:
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The Mission provides an itemized list of **bulk organic materials** (defined as; all carbon-containing compounds including payload biological materials but excluding carbides, carbonates, cyanides and simple oxides of carbon [i.e., CO and CO₂]) presented at the same level as the MIUL/materials list, as used on the flight hardware, estimated actual (in kg) for organic materials present in amounts larger than 1kg; “small amounts” for organic materials present in amounts between 1kg and 0.1kg, and; “traces” for identifiable organic materials present in amounts less than 0.1kg (Add more lines as needed for each line entry).

1) Commodities and Fuel

e.g., all constituents, oxidants and reductants - MMH; MMH, UDMH, peroxide NTO, cold gas etc.

Spacecraft Total Dry Mass (kg)					
Engine Type (e.g. mono, byprop)					
Engine Quantity					
Engine Thrust / Size (N)					
Key Reaction Products					
Material Name and Usage	Starting Quantity (kg)	Orbit Insertion Quantity (kg)	Landed Quantity (kg)	Propellant Utilization 100m from Surface (kg)	End of Mission Estimate (kg)
	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0

2) Adhesives and Potting Compounds

e.g., RTV/Silicones (DOW, Nusil, Hysol); polyurethanes such as arathane/solothane conformal coatings; epoxies such as Scotchweld, CFRP resin.

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

3) Primers, Paints and Inks

e.g., Aeroglaze, Chemglaze etc.

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

4) Thermal Control Films

e.g., Kapton, FEP Teflon, Beta cloth

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

5) Lubricants

e.g., Braycote, Molybdenum Disulfide dry film

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

6) Plastics and Elastomeric Materials

e.g., Circuit board with PTFE GI polyimide resin (PWB or PCB); Wiring Overwraps: Silicones Kapton (polyimide); PEI (polyether imide); ETFE (tefzel); Nylon (polyamide); PTFE (Teflon); Heat Shrink: Polyolefin or Polyvinylidene Fluoride types; O-rings and seals with ethyl, propyl, butyl and Viton Rubber; Fluorosilicone Electron Tape (polyester), EMI shielding including e.g., Vespel (SP-1).

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

7) Tapes

Adhesive Tapes are principally represented by kapton (polyimide), polyester, FEP and Teflon backings with acrylic or silicone adhesives

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐

8) Other

A range of other materials will need to be included, including e.g., Lacing Tape and Cards, Thread, Fibers such as Nomex, Dacron Scrim Cloth (polyester); DAP, Ultem PEI, PPS bulk castings; Nylon (Polyamide) used in structures; fiber, Velcro and vibe pads; propellant (MMH, UDMH); payload biological materials (living or dead).

Material Name and Usage	Actual Amount (kg)	Small Amount	Traces
	0.0	☐	☐
	0.0	☐	☐