

## Environmental Management and Materials Information

Product Content Information for: MAX809JEUR

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### Qualifications [Top](#)

<b>Lead-Free Qualified</b>	No
<b>REACH</b>	Yes: 2014-12-17
<b>RoHS Qualified</b>	No
<b>Green</b>	No
<b>Moisture Sensitivity Level</b>	L1
<b>Flammability Meets UL-94 (V-0 Rating)</b>	Yes
<b>Assembler Qualified</b>	CARSEM

### Package Description [Top](#)

<b>Package Code</b>	U3-1
<b>Package Type</b>	SOT *
<b>Package Description</b>	Small-Outline Transistor Package
<b>Package Option</b>	(Carsem only)
<b>Footprint Area (mm<sup>2</sup>)</b>	8
<b>Pin Count</b>	3
<b>Lead Form<sup>1</sup></b>	GW
<b>Unit Weight in Grams</b>	0.009319

### Chemical Composition Summary [Top](#)

[Maxim NIA/NIU Substance List \(PDF, 24k\)](#)

Substance	CAS Number	Amount (grams)	% of Unit Weight
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Aluminum (Al)	7429-90-5	0	0
Antimony (Sb <sub>2</sub> O <sub>3</sub> )	1309-64-4	0.000165	1.77058
BCB Resin		0	0
Bromine (Br)	7726-95-6	5.5e-05	0.59019
Carbon (C)	7440-44-0	0	0
Carbon Black	1333-86-4	0	0
Ceramic (BaTiO <sub>3</sub> )	12047-27-7	0	0
Chromium (Cr)	7440-47-3	0	0
Cobalt (Co)	7440-48-4	0	0
Copper (Cu)	7440-50-8	0	0
Gold (Au)	7440-57-5	0.0001	1.07308
Indium (In)	7440-74-6	0	0
Insulator (Polyimide)		0	0
Insulator Film		0	0
Iron (Fe)	7439-89-6	0.001397	14.99088
FeO <sub>2</sub>	12411-15-36	0	0
Lead (Pb)	7439-92-1	3e-05	0.32192
Magnesium (Mg)	7439-95-4	0	0
Manganese (Mn)	7439-96-5	0	0
MnO <sub>3</sub>		0	0
Nickel (Ni)	7440-02-0	0.00096	10.30153
NiPdAu		0	0
Nickel-V (NiV)		0	0
Palladium (Pd)	7440-05-3	0	0
Phosphorus (P)	7723-14-0	0	0
Silica (SiO <sub>2</sub> )	11126-22-0	0.004042	43.37375
Silicon (Si)	7440-21-3	0.0011	11.80384
Silver (Ag)	7440-22-4	4.5e-05	0.48288
Solder Mask		0	0
Solder Paste		0	0
Spheron Polymer Passivation		0	0
Sulfur (S)	7704-34-9	0	0
Tin (Sn)	7440-31-5	0.00017	1.82423
Titanium (Ti)	7440-32-6	0	0
Titanium-W (TiW)		0	0
Tungsten (W)	7440-33-7	0	0
Vanadium (V)	7440-62-2	0	0

Zinc (Zn)	7440-66-6	0	0
ZnO	1314-13-2	0	0
Zirconium (Zr)	7440-67-7	0	0

### Detailed Package Component Data [Top](#)

#### Bond Wire Components

##### Summary

Component Weight 0.0001

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Gold (Au)	0.0001	100.00000	1.07308
Aluminum (Al)	0	0	0

#### Die Attach Epoxy Components

##### Summary

Die Attach Material 84-1LMISR4

Component Weight 6e-05

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Aromatic Amine		0	0
Copper (Cu)	0	0	0
Diester	0	0	0
Epoxy	1.5e-05	25.00000	0.16096
Functionalized Ester	0	0	0
Functionalized Urethane	0	0	0
Indium (In)	0	0	0
Lactone	0	0	0
Lead (Pb)	0	0	0
Polymeric	0	0	0
Polyoxypropylenediamine	0	0	0
Resin	0	0	0
Silver Filler (Ag)	4.5e-05	75.00000	0.48288
Tin (Sn)	0	0	0
Other		0	0

#### Lead Finish/Plating Components

##### Summary

Lead Finish Plating

85Sn/15Pb plate

Assembly Lead Finish Process

Component Weight

0.0002

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Lead (Pb)	3e-05	15.00000	0.32192
Tin (Sn)	0.00017	85.00000	1.82423
NiPdAu	0	0	0
Gold (Au)	0	0	0
Nickel (Ni)	0	0	0

### Lead Frame Components

#### Summary

Lead Frame Material

Alloy 42

Component Weight

0.002357

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Aluminum (Al)	0	0	0
Carbon (C)	0	0	0
Chromium (Cr)	0	0	0
Cobalt (Co)		0	0
Copper (Cu)	ND	0	0
Gold (Au)		0	0
Iron (Fe)	0.001397	59.27026	14.99088
Lead (Pb)		0	0
Magnesium (Mg)	ND	0	0
Manganese (Mn)		0	0
Nickel (Ni)	0.00096	40.72974	10.30153
Palladium (Pd)	0	0	0
Phosphorus (P)		0	0
Silicon (Si)		0	0
Silver (Ag)		0	0
Sulfur (S)	0	0	0
Tin (Sn)		0	0
Zinc (Zn)	ND	0	0
Zirconium (Zr)	0	0	0

## Mold Compound Components

### Summary

Mold Material	CEL9220HF13
Resin Type	OCN
Component Weight	0.005502

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Antimony (Sb <sub>2</sub> O <sub>3</sub> )	0.000165	2.99891	1.77058
Bromine (Br)	5.5e-05	0.99964	0.59019
Carbon Black		0	0
Epoxy	0	0	0
Epoxy Cresol Novolac	0	0	0
Metal Hydroxide		0	0
Phenol Novolac		0	0
Silica (SiO <sub>2</sub> )	0.004042	73.46419	43.37375
Resin	0.00124	22.53726	13.30615
Other		0	0

### Silicon Chip Components

Substance	Amount (grams)	% of Component Weight	% of Unit Weight
Silicon Chip	0.0011	100	11.80384

Notes:

1. Lead Form: GW - Gull Wing, TH - Through Hole.
  2. Refer to product data sheet to confirm actual wire diameter.
  3. 'ND' means None Detected, negligible amount present.
- \* This package may be remarked. If remarked, the package will contain additional homogeneous materials—inks—that are not listed in contents of this report.

This part is not qualified as lead-free.

Parts not currently qualified as lead-free may not have been qualified as such due to low demand. Also, some package types cannot be produced as lead-free for technical reasons. If a customer requires that a package type "not qualified" as lead-free be manufactured and supplied, a request must be submitted to your Maxim sales contact person for approval. The navigation bar on the EMMI website contains information regarding the lead-free process (e.g. MSL's, Peak reflow Temperatures, JEDEC methods, frequently asked questions and answers, lead-free package tables, and status/qualification plans for particular package types qualified as lead-free or in the qualification process).

See a list of [packages qualified as lead-free](#).

This report was generated on 2015-06-20. For additional information, please visit the Maxim/Dallas Environmental Management and Materials Information website located at:

**<http://www.maximintegrated.com/en/emmi>**