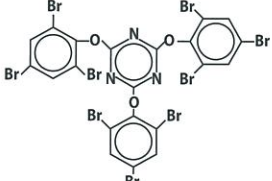
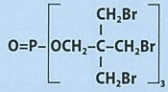
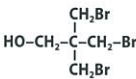
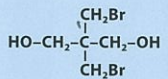
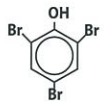
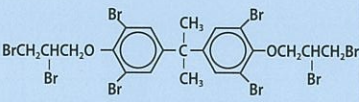
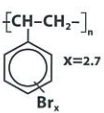
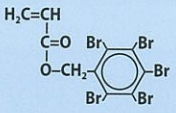
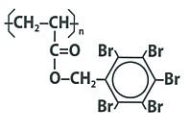
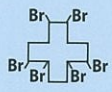
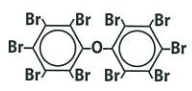
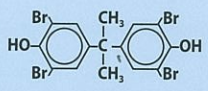


PRODUCTS & PROPERTIES

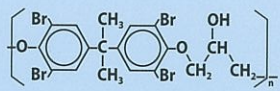
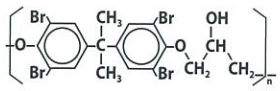
BROMINATED FLAME RETARDANTS

		M.W.	SPECIFIC GRAVITY	BROMINE CONTENT	MELTING RANGE/POINT	TGA %WT. LOSS @ TEMP.
FR-11 Ammonium bromide APPLICATIONS: Chipboard, Wood Paper, Textile CAS No. 12124-97-9	NH_4Br	97.9	2.43	81%	M.P. 452°C	
FR-245 Tris(tribromophenoxy) triazine APPLICATIONS: HIPS, ABS ADVANTAGES: combination of good flow and impact, UV and thermal stability, non-blooming	 CAS No. 25713-60-4	1067	2.44	67%	M.P. 230°C	2% @ 360°C 5% @ 385°C 10% @ 400°C
FR-370 Tris(tribromoneopentyl) phosphate APPLICATIONS: PP, HIPS, ABS, XPS, Alloys, Adhesives ADVANTAGES: UV and light stability, non-blooming	 CAS No. 19186-97-1	1018.5	2.30	70% (3% P)	M.P. 181°C	1% @ 282°C 5% @ 309°C 10% @ 319°C
FR-513 Tribromoneopentyl alcohol APPLICATIONS: PU rigid and flexible foams, FR intermediate ADVANTAGES: meets high FR standards, high thermal stability, non-leaching	 CAS No. 36483-57-5	324.9	2.30	73%	M.P. 65°C	2% @ 135°C 5% @ 152°C 10% @ 166°C
FR-522 Dibromoneopentyl glycol APPLICATIONS: UPE, PU rigid foams ADVANTAGES: high level of flame retardancy, light stability, transparency	 CAS No. 3296-90-0	261.9	2.23	60%	M.P. 109.5°C	2% @ 200°C 5% @ 225°C 10% @ 245°C
FR-613 Tribromophenol APPLICATION: FR Intermediate ADVANTAGE: end capping of brominated epoxies	 CAS No. 118-79-6	330.8	2.55	72%	M.P. 93°C	5% @ 120°C 10% @ 132°C
FR-720 Tetrabromobisphenol A - bis(2,3 dibromopropyl ether) APPLICATIONS: PP, HIPS, ABS ADVANTAGES: good FR efficiency and thermal stability	 CAS No. 21850-44-2	943.2	2.30	68%	M.R. 113-117°C	1% @ 291°C 5% @ 306°C 10% @ 313°C
FR-803P (polymer) Brominated polystyrene APPLICATIONS: Nylon, PBT, PET ADVANTAGES: good CTI, thermal stability, non-blooming	 CAS No. 88497-56-7	600000	2.1	66% min.	S.R. 265-324°C	2% @ 340°C 5% @ 358°C 10% @ 374°C

BROMINATED AND BROMINATED EPOXY FLAME RETARDANTS

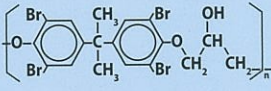
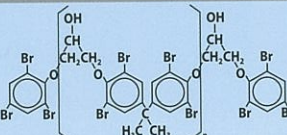
	M.W.	SPECIFIC GRAVITY	BROMINE CONTENT	MELTING RANGE/POINT	TGA %WT. LOSS @ TEMP.
<p>FR-1025M Brominated acrylate monomer APPLICATIONS: Latex, Rubbers ADVANTAGES: reactive monomer, thermal stability, improves compatibility in polymer matrix</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 59447-55-1</p>	556.5	2.50	71%	M.P. 117°C	2% @ 295°C 5% @ 319°C 10% @ 327°C
<p>FR-1025 (polymer) Brominated polyacrylate APPLICATIONS: PBT, Nylon, Alloys ADVANTAGES: excellent thermal aging, CTI, good impact, compatibility with fiber reinforcement and recycling</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 59447-57-3</p>	oligomer	2.50	71%	M.R. 190-220°C	2% @ 320°C 5% @ 330°C 10% @ 335°C
<p>FR-1206 Hexabromocyclododecane APPLICATIONS: EPS, XPS ADVANTAGES: high purity, low loading and good FR efficiency</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 3194-55-6</p>	641.7	2.18	73%	M.R. 175-185°C	2% @ 243°C 5% @ 247°C 10% @ 249°C
<p>FR-1210 Decabromodiphenyl oxide APPLICATIONS: HIPS, PE, PP, ABS, PBT, UPE, Epoxy, Nylon 6, Textiles ADVANTAGES: FR efficiency, exceptional thermal stability and multi-purpose.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 1163-19-5</p>	959.2	3.45	83%	M.P. 305°C	1% @ 322°C 5% @ 362°C 10% @ 385°C
<p>FR-1524 Tetrabromobisphenol-A APPLICATIONS: Epoxy, Polycarbonate Resins, ABS ADVANTAGES: high reactivity, low color, high clarity, good FR efficiency good solubility</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 79-94-7</p>	543.7	2.17	58.5%	M.P. 181°C	2% @ 262°C 5% @ 284°C 10% @ 301°C

F-2000 SERIES - Brominated Epoxy - Low molecular weight

<p>F-2001 APPLICATIONS: Unsaturated polyester and vinyl ester resins ADVANTAGES: UV stability, solubility in styrene</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 68928-70-1</p>	1000	1.80	49-51%	M.R. 60-70°C	1% @ 280°C 5% @ 320°C 10% @ 340°C
<p>F-2200 HM (Proprietary) APPLICATIONS: XPS, HIPS, Polyolefins ADVANTAGES: Thermal stabilizer, corrosion resistant, processing aid</p> <div style="text-align: center;">  </div> <p style="text-align: center;">CAS No. 3072-84-2</p>	700	1.80	48%	M.R. 108-118°C	1% @ 289°C 5% @ 326°C 10% @ 343°C

PRODUCTS & PROPERTIES

BROMINATED EPOXY FLAME RETARDANTS

	M.W.	SPECIFIC GRAVITY	BROMINE CONTENT	SOFTENING RANGE/TG	TGA %WT. LOSS @ TEMP.
F-2000 SERIES - Brominated Epoxy polymer					
 CAS No. 68928-70-1					
F-2016 (polymer) APPLICATION: ABS ADVANTAGES: good processability, high thermal and UV stability, non-blooming	1600	1.80	50%	S.R. 105-121°C	2% @ 318°C 5% @ 340°C 10% @ 358°C
F-2100L (polymer) APPLICATIONS: PBT, PC/ABS ADVANTAGES: high thermal and UV stability, non-blooming, non corrosive, excellent processability	10000	1.80	52%	170-190°C	1% @ 332°C 5% @ 338°C 10% @ 353°C
F-2100 (polymer) APPLICATIONS: PBT, PC/ABS ADVANTAGES: high thermal and UV stability, non-blooming, non-corrosive, excellent processability	20000	1.80	52%	S.R. 180-205°C	1% @ 332°C 5% @ 339°C 10% @ 353°C
F-2300H (polymer) APPLICATIONS: PBT, PET, Alloys (PC/ABS) ADVANTAGES: good mechanical, physical and flow properties, high thermal and UV stability	21500	1.80	52%	Tg 130-150°C	2% @ 337°C 5% @ 344°C 10% @ 349°C
F-2400 (polymer) APPLICATIONS: PBT, PET, Nylon, TPU, Alloys, ABS ADVANTAGES: high thermal and UV stability, non-blooming, excellent processability	50000	1.80	53%	Tg 145-155°C	2% @ 339°C 5% @ 347°C 10% @ 353°C
F-3000 SERIES - End capped Brominated Epoxy					
 CAS No. 158725-44-1					
F-3014 APPLICATIONS: HIPS, ABS ADVANTAGES: good processability, non-blooming, high thermal and UV stability, good HDT impact strength, low metal adhesion	1400	1.90	60%	S.R. 87-105°C	2% @ 338°C 5% @ 354°C 10% @ 356°C
F-3020 (polymer) APPLICATIONS: HIPS, ABS ADVANTAGES: good processability, nonblooming, hight thermal and UV stability, good HDT impact strength, low metal adhesion	2000	1.90	56%	S.R. 105-120°C	2% @ 348°C 5% @ 360°C 10% @ 366°C
F-3516 APPLICATIONS: HIPS, ABS ADVANTAGES: high thermal and UV stability, excellent flow properties, non-blooming low metal adhesion	1600	1.90	54%	S.R. 107-117°C	2% @ 326°C 5% @ 355°C 10% @ 365°C
F-3100 (polymer) APPLICATIONS: PBT, Nylon, Alloys, ABS ADVANTAGES: processing - aid, excellent flow properties, non-blooming low metal adhesion and good thermal and UV stability	15000	1.90	53%	S.R. 180-220°C	2% @ 338°C 5% @ 340°C 10% @ 354°C