

## REACH Communication of Uses to Downstream Users Epoxy Additives

The following table outlines REACH uses defined by Air Products for its Epoxy Additives product line. For a complete list of Epoxy Additives products, please use the link below:

[Complete product list, Epoxy Additives](#)

For a complete reference of the Use Descriptor System, please refer to the [Guidance on Information Requirements and Chemical Safety Assessment, Chapter R.12: Use Descriptor System](#) (Draft, 09/18/2009), published by the [European Chemicals Agency](#) (ECHA).

Application	Sector of Use (SU)	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)
Adhesives	21 Consumer uses	<p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p>	5, 9a, 9b	8a, 8c, 8d, 8f
	22 Professional uses	<p>2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling)</p> <p>3 Use in closed batch process (synthesis or formulation)</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>10 Roller application or brushing</p> <p>11 Non industrial spraying</p> <p>13 Treatment of articles by dipping and pouring</p> <p>15 Use as laboratory reagent</p> <p>19 Hand-mixing with intimate contact and only PPE available.</p>	1, 9a, 9b	8a, 8c, 8d, 8f
Chemical Manufacturing	<p>8 Manufacture of bulk, large scale chemicals (including petroleum products)</p> <p>9 Manufacture of fine chemicals</p>	<p>1 Use in closed process, no likelihood of exposure</p> <p>2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling)</p> <p>3 Use in closed batch process (synthesis or formulation)</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>15 Use as laboratory reagent</p>	N/A	1, 2
	N/A	<p>1 Use in closed process, no likelihood of exposure</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p>	N/A	1, 2

Application	Sector of Use (SU)	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)
Coatings	3 Industrial uses	<p>1 Use in closed process, no likelihood of exposure</p> <p>2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling)</p> <p>3 Use in closed batch process (synthesis or formulation)</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>7 Industrial spraying</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>10 Roller application or brushing</p> <p>13 Treatment of articles by dipping and pouring</p> <p>15 Use as laboratory reagent</p>	9a, 9b	4, 5, 8a, 8c, 8d, 8f
	21 Consumer uses	<p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>10 Roller application or brushing</p> <p>11 Non industrial spraying</p>	5, 9a, 9b	8a, 8c, 8d, 8f
	22 Professional uses	<p>2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling)</p> <p>3 Use in closed batch process (synthesis or formulation)</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>10 Roller application or brushing</p> <p>11 Non industrial spraying</p> <p>15 Use as laboratory reagent</p> <p>19 Hand-mixing with intimate contact and only PPE available.</p>	9a, 9b	8a, 8c, 8d, 8f
Composites	3 Industrial uses	<p>1 Use in closed process, no likelihood of exposure</p> <p>2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling)</p> <p>3 Use in closed batch process (synthesis or formulation)</p> <p>4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p>	9a, 9b	4, 5
(continued)				

Application	Sector of Use (SU)	Process Category (PROC)	Product Category (PC)	Environmental Release Category (ERC)
<i>(continued)</i> Composites	3 Industrial uses	8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities 10 Roller application or brushing 13 Treatment of articles by dipping and pouring 15 Use as laboratory reagent	9a, 9b	4, 5
	12 Manufacture of plastics products, including compounding and conversion	1 Use in closed process, no likelihood of exposure 10 Roller application or brushing 13 Treatment of articles by dipping and pouring	9a, 9b	5
	22 Professional uses	2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling) 3 Use in closed batch process (synthesis or formulation) 4 Use in batch and other process (synthesis) where opportunity for exposure arises 5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) 8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities 8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities 15 Use as laboratory reagent	9a, 9b	8a, 8c, 8d, 8f
Formulation	10 Formulation	1 Use in closed process, no likelihood of exposure 2 Use in closed, continuous process with occasional controlled exposure (e.g. sampling) 3 Use in closed batch process (synthesis or formulation) 4 Use in batch and other process (synthesis) where opportunity for exposure arises 5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) 8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities 9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing) 15 Use as laboratory reagent	N/A	1, 2
Product Delivery and Storage	3 Industrial uses	3 Use in closed batch process (synthesis or formulation) 8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	N/A	4, 5