



SAFETY DATA SHEET

B2012 Hardener

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name B2012 Hardener
Container size 28ml, 50ml, 400ml

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Two-component, epoxy-based adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier Bondloc UK Ltd
 Units 1 & 2 Bewdley Business Park
 Long Bank
 Bewdley
 Worcestershire
 DY12 2TZ
 United Kingdom
 +44 (0)1299 269269
 +44 (0)1299 269210
 sales@bondloc.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0)1299 269269

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

H302+H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

B2012 Hardener

Precautionary statements	P260 Do not breathe vapour/ spray.
	P261 Avoid breathing vapour/ spray.
	P264 Wash contaminated skin thoroughly after handling.
	P270 Do not eat, drink or smoke when using this product.
	P271 Use only outdoors or in a well-ventilated area.
	P272 Contaminated work clothing should not be allowed out of the workplace.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
	P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P302+P352 IF ON SKIN: Wash with plenty of water.
	P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P310 Immediately call a POISON CENTER/ doctor.
	P321 Specific treatment (see medical advice on this label).
	P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.
	P363 Wash contaminated clothing before reuse.
	P391 Collect spillage.
P405 Store locked up.	
P501 Dispose of contents/ container in accordance with national regulations.	
P102 Keep out of reach of children.	

Contains Triethylene Glycol Dimercaptan, N(3-dimethylaminopropyl)-1,3-propylenediamine

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Triethylene Glycol Dimercaptan	60-100%
CAS number: 14970-87-7	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
N(3-dimethylaminopropyl)-1,3-propylenediamine	10-30%
CAS number: 10563-29-8	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions To prevent release, place container with damaged side up. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Provide adequate ventilation. Eliminate all sources of ignition. Clear up spills immediately and dispose of waste safely. Absorb spillage with sand or other inert absorbent. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product. Keep container tightly closed and at temperature not exceeding 23°C. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep container tightly closed and at temperature not exceeding 23°C. Keep container tightly sealed when not in use.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Terphenyl

Short-term exposure limit (15-minute): WEL 0.5 ppm 4.8 mg/m³

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Appropriate engineering controls As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection Wear chemical splash goggles.

Other skin and body protection Wear appropriate clothing to prevent skin contamination.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

SECTION 9: Physical and chemical properties

B2012 Hardener

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Strong.
pH	Not applicable.
Melting point	Not available.
Initial boiling point and range	>149°C @
Flash point	≥ 157°C Cleveland open cup.
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	Not available.

9.2. Other information

Other information	No information required.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Keep away from heat, sparks and open flame.
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10.5. Incompatible materials

Materials to avoid	Oxidising agents. Acids - oxidising. Acids - non-oxidising.
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10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	555.55555556
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Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	12.22222222
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SECTION 12: Ecological information

B2012 Hardener

Ecotoxicity Very toxic to aquatic life with long lasting effects. The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Ecotoxicity

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Partition coefficient Not available.

12.4. Mobility in soil

Mobility No data on possible environmental effects have been found.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1760

UN No. (IMDG) 1760

UN No. (ICAO) 1760

UN No. (ADN) 1760

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE LIQUID, N.O.S. (N(3-dimethylaminopropyl)-1,2-propylenediamine)

Proper shipping name (IMDG) CORROSIVE LIQUID, N.O.S. (N(3-dimethylaminopropyl)-1,2-propylenediamine)

Proper shipping name (ICAO) CORROSIVE LIQUID, N.O.S. (N(3-dimethylaminopropyl)-1,2-propylenediamine)

Proper shipping name (ADN) CORROSIVE LIQUID, N.O.S. (N(3-dimethylaminopropyl)-1,2-propylenediamine)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C9

ADR/RID label 8

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IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels**14.4. Packing group**

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Dangerous Preparations Directive 1999/45/EC.
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15.2. Chemical safety assessment**Inventories****EU - EINECS/ELINCS**

None of the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

SECTION 16: Other information

B2012 Hardener

Revision date	17/02/2020
Supersedes date	21/01/2015
SDS number	4828
Hazard statements in full	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful if inhaled. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

WARRANTY: All products purchased from or supplied by Bondloc are subject to terms and conditions set out in the contract. Bondloc warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Bondloc is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Bondloc makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



SAFETY DATA SHEET B2012 Resin

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name B2012 Resin

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Two-component, epoxy-based adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier Bondloc UK Ltd
Units 1 & 2 Bewdley Business Park
Long Bank
Bewdley
Worcestershire
DY12 2TZ
United Kingdom
+44 (0)1299 269269
+44 (0)1299 269210
sales@bondloc.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0)1299 269269

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

B2012 Resin

Precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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Contains	reaction product: bisphenol-A-(epichlorhydrin), Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
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2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

reaction product: bisphenol-A-(epichlorhydrin)	60-100%
CAS number: 25068-38-6 EC number: 500-033-5 REACH registration number: 01-2119456619-26-0016	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	5-10%
CAS number: 9003-36-5 EC number: 500-006-8 REACH registration number: 01-2119454392-40-0000	
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention if symptoms are severe or persist.
Ingestion	Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.

B2012 Resin

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention if symptoms are severe or persist after washing.

Eye contact Get medical attention if irritation persists after washing.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation May cause respiratory irritation.

Ingestion No specific symptoms known.

Skin contact May cause an allergic skin reaction. Irritating to skin.

Eye contact Causes eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Oxides of carbon. Aldehydes Organic acids Acrid smoke or fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use suitable respiratory protection if ventilation is inadequate. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. To prevent release, place container with damaged side up.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up If leakage cannot be stopped, evacuate area. Provide adequate ventilation. Absorb spillage with sand or other inert absorbent. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

B2012 Resin

Usage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Do not store near heat sources or expose to high temperatures. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear chemical splash goggles.

Other skin and body protection Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Clear.
Odour	Mild.
pH	Not applicable.
Melting point	Not available.
Initial boiling point and range	260°C/500°F @
Flash point	≥ 249°C/480°F Pensky-Martens closed cup.
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

B2012 Resin

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame.

10.5. Incompatible materials

Materials to avoid Oxidising agents. Strong acids. Amines.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Aldehydes. Organic acids

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No data recorded.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Ecotoxicity

Toxicity No data available.

12.2. Persistence and degradability

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Partition coefficient Not available.

12.4. Mobility in soil

Mobility No information available

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

SECTION 14: Transport information

14.1. UN number

3082

B2012 Resin

14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Epoxy Resin Number average MWC <= 700)

14.3. Transport hazard class(es)

9

Transport labels



14.4. Packing group

III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

Emergency Action Code 32

Hazard Identification Number 90
(ADR/RID)

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Dangerous Preparations Directive 1999/45/EC.

15.2. Chemical safety assessment

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

B2012 Resin

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

SECTION 16: Other information

Revision date	17/02/2020
Supersedes date	14/01/2015
SDS number	4829
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

WARRANTY: All products purchased from or supplied by Bondloc are subject to terms and conditions set out in the contract. Bondloc warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Bondloc is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Bondloc makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.