

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

1.1. Product identifier

Product form : Mixture
Product name : XRD/G
Product code : U831

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only
Use of the substance/mixture : Adhesives, binding agents
Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

XRD Nano Limited
Cambridge Vision Park
Chivers Way
CB24 9AD Cambridge - United Kingdom
T +44(0) 1793 823741
www.xrdnano.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP : Xi: R38; Xi: R41; Sens.: R43
Classification under CLP : Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1A: H317
Most important adverse effects : Irritating to skin. Risk of serious damage to eyes. May cause sensitisation by skin contact.

2.2. Label elements

Label elements under CLP:

Hazard statements: H315: Causes skin irritation.
H317: May cause an allergic skin reaction. H318: Causes serious eye damage.
Signal words: Danger
Hazard pictograms: GHS05: Corrosion
GHS07: Exclamation mark



XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Precautionary statements (CLP) : P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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 or doctor.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Label elements under CHIP:

Hazard symbols: Irritant.



Risk phrases: R38: Irritating to skin.
R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.

Safety phrases: S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39: Wear suitable gloves and eye / face protection.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Hazardous ingredients:

ETHOXYLATED TRIMETHYLOLPROPANE TRIACRYLATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
500-066-5	28961-43-5	Xi: R36; Sens.: R43	Eye Irrit. 2: H319; Skin Sens. 1: H317; Skin Sens. 1A: H317; Skin Sens. 1B: H317	50-70%

DIPROPYLENE GLYCOL DIACRYLATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
260-754-3	57472-68-1	Xi: R38; Xi: R41; Sens.: R43	Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317	10-30%

XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.

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

Treat symptomatically.

Skin contact	: There may be irritation and redness at the site of contact.
Eye contact	: There may be irritation and redness. The eyes may water profusely.
Ingestion	: There may be soreness and redness of the mouth and throat.
Inhalation	: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.
Delayed / immediate effects	: Immediate effects can be expected after short-term exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media	: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
---------------------	--

5.2. Special hazards arising from the substance or mixture

Exposure hazards	: In combustion emits toxic fumes.
------------------	------------------------------------

5.3. Advice for firefighters

Advice for fire-fighters	: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes
--------------------------	---

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.
----------------------	--

6.2. Environmental precautions

Environmental precautions	: Do not discharge into drains or rivers. Contain the spillage using bunding.
---------------------------	---

6.3. Methods and material for containment and cleaning up

Clean-up procedures	: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.
---------------------	--

6.4. Reference to other sections

Reference to other sections	: See section 7 for information on safe handling. See Section 8 for information on personal protective equipment. See section 13 for disposal information.
-----------------------------	--

XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements : Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in cool, well ventilated area. Keep container tightly closed.

Suitable packaging : It is recommended to store in original packaging

7.3. Specific end use(s)

Specific end use(s) : UV light curing varnish for professional use in pressrooms only

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Engineering measures : Ensure there is sufficient ventilation of the area.
Respiratory protection : Self-contained breathing apparatus must be available in case of emergency.
Hand protection : Wear Nitrile Gloves of minimum thickness 0.5mm. Gloves should be replaced regularly or if any change in appearance is noticed. Ensure gloves are manufactured/tested in accordance with BS EN 374. Penetration times carried out according to EN 374 part III are not always practical, therefore max. wearing time of 50% of penetration time is recommended.
Eye protection : Safety glasses. Ensure eye bath is to hand.
Skin protection : Protective clothing.

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State : Liquid
Odour : Acrylate odour
Solubility in water : Insoluble
Viscosity : Non-viscous
Flash point°C : >100

9.2. Other information

No additional information available

XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid : Heat. Direct sunlight.

10.5. Incompatible materials

Materials to avoid : Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products : In combustion emits toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

DIPROPYLENE GLYCOL DIACRYLATE

ORAL	RAT	Ld50	>5000	mg/kg
------	-----	------	-------	-------

Relevant effects for mixture:

Effect	Route	Basis
Irritation	OPT DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated

Symptoms / routes of exposure

Skin contact : There may be irritation and redness at the site of contact.
Eye contact : There may be irritation and redness. The eyes may water profusely.
Ingestion : There may be soreness and redness of the mouth and throat.
Inhalation : There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.
Delayed / immediate effects : Immediate effects can be expected after short-term exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity values : No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available

XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

12.4. Mobility in soil

Mobility : No data available.

12.5. Results of PBT and vPvB assessment

PBT identification : This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations : Transfer to a suitable container and arrange for collection by specialised disposal company.
Disposal of packaging : Arrange for collection by specialised disposal company.
NB : The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14: Transport information

Transport class : This product does not require a classification for transport.

SECTION 15: Regulatory information

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

Specific regulations : EU Legislation Regulation (EC) No 1907/2006 REACH. Regulation (EC) No 1272/2008 CLP.

15.2. Chemical safety assessment

Chemical safety assessment : A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

SECTION 16: Other information

Other information : This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

Phrases used in s.2 and s.3 : H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
R36: Irritating to eyes.
R38: Irritating to skin.
R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.

Legend to abbreviations : PNEC = predicted no effect level
DNEL = derived no effect level
LD50 = median lethal dose
LC50 = median lethal concentration
EC50 = median effective concentration
IC50 = median inhibitory concentration
w = dry weight
bw = body weight
cc = closed cup
oc = open cup

XRD/G

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

MUS = mouse
GPG = guinea pig
RBT = rabbit
HAM = hamster
HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = physico-chemical properties

Legal Disclaimer : The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product