

SAFETY DATA SHEET

SECTION 1: IDENTITY

1.1 PRODUCT IDENTIFIER

Product Name: VBM Bonder, VBM Poly ThinBrick, VBM Thinset, VBM, VBM LFT, VBM 300, VBM 500, VP Joint Grout, VP Joint Grout-Premium, MAC Mortar, MAC Plus, MAC Plus-Premium, MAC Scratch N Brown, Deck Mud, Poly Deck Mud, Type S

Product Code: Not Available

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Product Use: Bonding Mortars, Joint Grouts

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEETS

Name/Address: R-CRETE INC.
P.O. Box 80286
Rancho Santa Margarita, CA 92688

Telephone Number: 949-888-8401 Fax 949-888-5720

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: 949-888-8401

SECTION 2: HAZARDOUS INGREDIENTS

Classification of the substance or mixture

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

EC Labeling:

Symbol(s) None
Signal word None
Hazard statement None

Precautionary statement

Prevention	Observe good industrial hygiene practices.
Response	Rinse skin with water.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not result in classification Dusts may irritate the respiratory tract, skin and eyes. Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

2.1 CLASSIFICATION OF THE CHEMICAL IN ACCORDANCE WITH PARAGRAPH (d) OF 29 CFR

1910.1200 (OSHA HAZCOM2012)

Skin Irritation	Category 2
Serious Eye Damage	Category 1
STOT-SE	Category 3
STOT-RE	Category 1
Carcinogenicity	Category 1A

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM2012

2.2a SIGNAL WORD:
DANGER!

2.2b HAZARD STATEMENTS
 Causes skin irritation
 Causes serious eye damage
 May cause respiratory irritation
 Causes damage to organs through prolonged or repeated exposure
 May cause cancer

2.2c HAZARD PICTOGRAMS



2.2d PRECAUTIONARY STATEMENTS

i. PREVENTION	Wash hands thoroughly after handling. Do not breathe dust/fume/gas/mist/ vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
ii. RESPONSE	If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention.
iii. STORAGE	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
iv. DISPOSAL	Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations.

2.3 ADDITIONAL INFORMATION

2.3a HNOC – HAZARDS NOT OTHERWISE CLASSIFIED

Not applicable

2.3b UNKNOWN ACUTE TOXICITY

57% of the mixture consists of ingredient(s) of unknown acute toxicity.

2.3c WHMIS CLASSIFICATION

Class D2B – Skin/Eye Irritant

Class D2A – Chronic Toxic Effects

Class D2A - Carcinogenicity

2.3d LABEL ELEMENTS ACCORDING TO WHMIS

i. WHMIS HAZARD SYMBOLS



ii. WHMIS SIGNAL WORD WARNING!

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Chemical Name	CAS Number	Weight %
Portland Cement	65997-15-1	15 - 40%*
Crystalline Silica, Quartz	14808-60-7	30 – 60%*
Calcium carbonate	1317-65-3	10 – 30%*

*The exact percentage (concentration) of composition has been expressed as a range due to batch-to-batch variation, in accordance with paragraph (i) of §1910.1200.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF THE FIRST-AID MEASURES

ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
Inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED

ROUTES OF EXPOSURE	DESCRIPTION
Eye Contact:	Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Skin Contact:	Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis.
Inhalation:	May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease. Please see section 4.3 for further information.
Ingestion:	May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Note to Physicians:

The three types of silicosis include:

- Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD).
- Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years). Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis.
- Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels.

Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

Special Treatments:

In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: FIREFIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not Flammable by WHMIS/OSHA HAZCOM2012 Criteria

5.2 EXTINGUISHING MEDIA

5.2a. Suitable Extinguishing Media:

Treat for surrounding material.

5.2b. Unsuitable Extinguishing Media:

Not available.

5.3 SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

5.3a. Products of Combustion:

May include, and are not limited to: oxides of carbon and hydrogen sulfide

5.3b. Explosion Data

- i. **Sensitivity to Mechanical Impact:** Not available.
- ii. **Sensitivity to Static Discharge:**
Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Methods for Containment:

Recover all usable material. Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up:

Vacuum or sweep material and place in a disposal container. Dispose of unwanted material properly in accordance with all local, regional, national and international regulations.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Use in well-ventilated areas. Wear chemical resistant gloves and eye protection. Do not mix with other chemical products. Do not get in eyes. Do not get on skin or clothing. Do not breathe fumes. Do

not take internally. Good Housekeeping is important to prevent accumulation of dust.

To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains this product.

General Hygiene Advice:

Use good industrial hygiene practices and wear recommended personal protection. Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage:

Keep out of the reach of children. Keep container tightly closed. Store at room temperature and keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Keep dry until use.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Chemical Name	OSHA-PEL	ACGIH-TLV
Crystalline Silica, Quartz	0.1 mg/m ³	0.025 mg/m ³
Portland cement	5 mg/m ³ (Resp.) 15 mg/m ³ (Total)	10 mg/m ³ (Resp.)
Calcium carbonate	5 mg/m ³ (Resp.) 15 mg/m ³ (Total)	2 mg/m ³ (Resp.)

8.2 EXPOSURE CONTROLS

Engineering Controls:

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTION MEASURES

8.3a. Personal Protective Equipment:

- i. **Eye/Face Protection:** Wear approved eye [properly fitted dust- or splash-proof chemical safety goggles/face (face shield)] protection

- ii. **Skin Protection:**
 - 1. **Hand Protection:** Wear chemical resistant gloves.
 - 2. **Body Protection:** Wear suitable protective clothing

- iii. **Respiratory Protection:** A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

- iv. **General Health and Safety Measures:** Handle according to established industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.):	Solid Powder
Odor:	Characteristic
Odor Threshold:	Not available
pH:	10 – 13 when wet
Melting point/Freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	> 212°F
Evaporation rate (Water=1):	Not available
Flammability:	Not flammable
Upper Flammability/Explosive Limit:	Not available
Lower Flammability/Explosive Limit:	Not available
Vapor Pressure	Not available
Vapor Density:	Not available
Relative Density:	Not available
Solubility in Water:	Slightly Soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity (cps):	Not available
VOC Content:	0 g/L (0%)
Appearance (physical state, color, etc.):	Solid Powder

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2. CHEMICAL STABILITY

Stable under normal storage conditions. Keep dry in storage.

10.3. POSSIBILITY OF HAZARDOUS REACTION

Reacts with water to form alkaline solution (condition of normal use)

10.4. CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5. INCOMPATIBLE

MATERIALS None known.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Upon decomposition, this product may yield oxides of carbon and hydrogen sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. LIKELY ROUTES OF EXPOSURE:

Skin contact, skin absorption, eye contact, inhalation, and ingestion.

11.2. SYMPTOMS RELATED TO PHYSICAL/CHEMICAL/TOXICOLOGICAL CHARACTERISTICS:

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Skin Contact: Causes skin irritation. Handling can cause dry skin, discomfort, irritation, and dermatitis.

Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious disabling and fatal lung disease. Please see section 4.3 for further information.

Ingestion: May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

Acute Toxicity

Chemical Name	LC50	LD50
Crystalline Silica, Quartz	Not available	Not available

Portland cement	Not available	Not available
Calcium carbonate	Not available	Oral: 6450 mg/kg (essentially not toxic)

Chemical Name	Chemical Listed as Carcinogens or Potential Carcinogen (NTP,IARC,OSHA,ACGIH,CP65)*
Crystalline Silica, Quartz	N-A2, I-1, O-1, CP65
Portland cement	Not Listed
Calcium carbonate	Not Listed

11.3. DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT AND LONG-TERM EXPOSURE

SHORT-TERM	
Skin Corrosion/Irritation:	Causes skin irritation
Serious Eye Damage/Irritation:	Causes severe eye damage
Respiratory Sensitization:	Not available
Skin Sensitization:	Not available
STOT-Single Exposure:	May cause respiratory irritation
Aspiration Hazard:	Not available
LONG-TERM	
Carcinogenicity:	May cause cancer
Germ Cell Mutagenicity:	Not available
Reproductive Toxicity:	Not available
STOT-Repeated Exposure:	Causes damage to organs through prolonged or repeated exposure
Synergistic/Antagonistic Effects:	Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1. ECOTOXICITY

May cause long-term adverse effects to the aquatic environment. Keep from entry into sewers and waterways.

Chemical Name	Ecotoxicity	
	EC50/NOEC-48 Hours	LC50/NOEC-96 Hours
Crystalline Silica, Quartz	Not available	Not available
Portland cement	Not available	Not available
Calcium carbonate	Not available	Not available

12.2. PERSISTENCE AND DEGRADABILITY

Not available

12.3. BIOACCUMULATIVE POTENTIAL

Not available

12.4. MOBILITY IN SOIL

Not available

12.5. OTHER ADVERSE EFFECTS

Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. DISPOSAL METHOD

Dispose of contents/containers in accordance with all local, state, provincial, and federal regulations

13.2. OTHER DISPOSAL CONSIDERATIONS

Not available

SECTION 14: TRANSPORT INFORMATION

DOT (U.S.)	TDG (CANADA)
UN NUMBER: Not regulated	UN NUMBER: Not regulated
UN PROPER SHIPPING NAME: Not regulated	UN PROPER SHIPPING NAME: Not regulated
TRANSPORT HAZARD CLASS (ES): Not regulated	TRANSPORT HAZARD CLASS (ES): Not regulated
PACKING GROUP (if applicable): Not regulated	PACKING GROUP (if applicable): Not regulated

SUMMARY: Product is not regulated under DOT/TDG and other transportation regulations.

14.1. ENVIRONMENTAL HAZARDS

Not available

14.2. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available

14.3. SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

15.2. US FEDERAL INFORMATION:

SARA TITLE III: Section 302, Extremely Hazardous Substances, 40 CFR 355:

SARA TITLE III: Section 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Fire

Hazard; Immediate (Acute) Health Hazard; Chronic Health Hazard; Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Section 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements if it contains Toxic Chemical Constituents above their de minimus concentrations.

Clean Air Act – Not available

SARA TITLE III				
CHEMICAL NAME	SECTION 302 (EHS) TPQ (LBS)	SECTION 304 EHS RQ (LBS)	CERCLA RQ (LBS)	SECTION 313 (TRI)
Crystalline Silica, Quartz	Not Listed	Not Listed	Not Listed	Not Listed
Portland cement	Not Listed	Not Listed	Not Listed	Not Listed
Calcium carbonate	Not Listed	Not Listed	Not Listed	Not Listed

15.3. US STATE RIGHT TO KNOW LAWS:

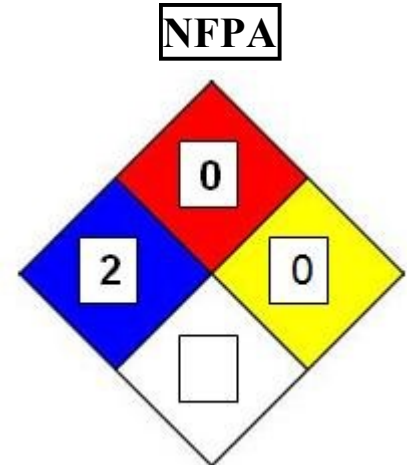
California Proposition 65:	WARNING! This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm (Crystalline Silica)
Other U.S. States “Right to Know” Lists:	
New Jersey:	SILICA, QUARTZ: CAS#14808-60-7 SILICATE, PORTLAND CEMENT: CAS#65997-15-1 CALCIUM CARBONATE: CAS#1317-65-3 GYPSUM (CALCIUM SULFATE): CAS#7778-18-9 CALCIUM FORMATE: CAS#544-17-2
Pennsylvania:	SILICA, QUARTZ: CAS#14808-60-7 CEMENT, PORTLAND, CHEMICALS: CAS#65997-15-1 LIMESTONE: CAS#1317-65-3 GYPSUM (CALCIUM SULFATE): CAS#7778-18-9 CALCIUM FORMATE: CAS#544-17-2
Massachusetts:	QUARTZ: CAS#14808-60-7 PORTLAND CEMENT: CAS#65997-15-1 CALCIUM CARBONATE: CAS#1317-65-3 GYPSUM (CALCIUM SULFATE): CAS#7778-18-9
Minnesota:	SILICA, QUARTZ: CAS#14808-60-7 PORTLAND CEMENT: CAS#65997-15-1
	CALCIUM CARBONATE: CAS#1317-65-3 GYPSUM (CALCIUM SULFATE): CAS#7778-18-9
Florida:	Not Available
Michigan:	Not Available

15.4. GLOBAL INVENTORIES

Chemical Name	USA TSCA	Canada DSL/NDSL
Crystalline Silica, Quartz	Yes	DSL
Portland cement	Yes	DSL
Calcium carbonate	Yes	DSL

15.5. NFPA AND HMIS RATINGS:

<p align="center">HEALTH HAZARD</p> <p>4 EXTREME - Highly toxic - May be fatal on short-term exposure.</p> <p>3 SERIOUS - Toxic - Full protective suit and breathing apparatus should be worn.</p> <p>2 MODERATE - Breathing apparatus and face mask must be worn.</p> <p>1 SLIGHT - Breathing apparatus may be worn.</p> <p>0 MINIMAL - No precautions necessary.</p>	<p align="center">FLAMMABILITY HAZARD</p> <p>4 EXTREME - Extremely flammable gas or liquid. Flash Point below 73°F.</p> <p>3 SERIOUS - Flammable. Flash Point 73°F to 100°F.</p> <p>2 MODERATE - Combustible. Requires moderate heating to ignite. Flash Point below 200°F.</p> <p>1 SLIGHT - Slightly combustible. Requires strong heating to ignite.</p> <p>0 MINIMAL - Will not burn under normal conditions.</p>
<p align="center">SPECIFIC HAZARD</p> <p>OXIDIZER OXY</p> <p>ACID ACID</p> <p>ALKALI ALK</p> <p>CORROSIVE COR</p> <p>Use NO WATER W</p> <p>RADIATION ☣</p>	<p align="center">INSTABILITY HAZARD</p> <p>4 EXTREME - Explosive at room temperature.</p> <p>3 SERIOUS - May detonate if shocked or heated under confinement or mixed with water.</p> <p>2 MODERATE - Unstable. May react with water.</p> <p>1 SLIGHT - May react if heated or mixed with water.</p> <p>0 MINIMAL - Normally stable. Does not react with water.</p>



HMIS

*2 HEALTH	PROTECTIVE EQUIPMENT INDEX	
0 FLAMMABILITY	A	G
0 REACTIVITY	B	H
0 PERSONAL PROTECTION	C	I
B	D	J
	E	K
	F	X <small>Ask your supervisor for special handling instructions.</small>

***Chronic Hazard Indicator**

15.6. SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65	California Proposition 65
OSHA (O)	Occupational Safety and Health Administration
ACGIH (G)	American Conference of Governmental Industrial Hygienists <ul style="list-style-type: none"> A1 – Confirmed human carcinogen A2 – Suspected human carcinogen A3 – Animal carcinogen A4 – Not classifiable as a human carcinogen A5 – Not suspected a human carcinogen

IARC (I)	International Agency for Research on Cancer <ul style="list-style-type: none"> • 1 – The agent (mixture) is carcinogenic to humans • 2A – The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals. • 2B – The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals. • 3 – The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans. • 4 – The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.
NTP (N)	National Toxicology Program <ul style="list-style-type: none"> • 1 – Known to be carcinogens • 2 – Reasonably anticipated to be carcinogens

SECTION 16: OTHER INFORMATION

Date of Preparation: July 6, 2015

Version: 2.0

Revision Date: N/A

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.